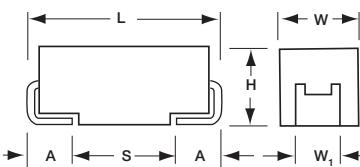
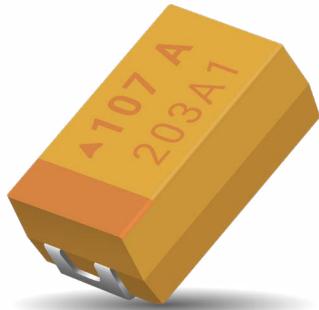


# TBJ SERIES

## DLA Dwgs 07016 & 95158



### MARKING

(Brown marking on gold body)



**Polarity Stripe (+)**  
**Capacitance Code**  
**Rated Voltage**  
**Manufacturer's ID**  
**Lot Number**

The DLA 07016 & 95158 families, based on the CWR11 form factor, are high reliability series encompassing the current range of EIA Low ESR ratings. DLA 07016 has the widest range of case sizes, capacitance / voltage ratings, and is offered with Weibull Grade "B", "C", and "D" reliability with all MIL-PRF-55365 surge test options ("A", "B" & "C").

For Space Level applications, SRC9000 qualification is recommended. Please refer to the TBJ COTS-Plus SRC9000 datasheet for part number availability.

There are four termination finishes available:

solder plated, fused solder plated, hot solder dipped and gold plated (these correspond to "H", "K", "C" and "B" termination, respectively, per MIL-PRF-55365).

The molding compound has been selected to meet the requirements of UL94V-0 (Flame Retardancy) and outgassing requirements of ASTM E-595.

For moisture sensitivity levels please refer to the High Reliability Tantalum MSL section located in the back of the High Reliability Tantalum Catalog.

### CASE DIMENSIONS: millimeters (inches)

| Code     | EIA Code | EIA Metric | L±0.20 (0.008) | W+0.20 (0.008)<br>-0.10 (0.004) | H+0.20 (0.008)<br>-0.10 (0.004) | W <sub>1</sub> ±0.20 (0.008) | A+0.30 (0.012)<br>-0.20 (0.008) | S Min.       |
|----------|----------|------------|----------------|---------------------------------|---------------------------------|------------------------------|---------------------------------|--------------|
| <b>A</b> | 1206     | 3216-18    | 3.20 (0.126)   | 1.60 (0.063)                    | 1.60 (0.063)                    | 1.20 (0.047)                 | 0.80 (0.031)                    | 1.10 (0.043) |
| <b>B</b> | 1210     | 3528-21    | 3.50 (0.138)   | 2.80 (0.110)                    | 1.90 (0.075)                    | 2.20 (0.087)                 | 0.80 (0.031)                    | 1.40 (0.055) |
| <b>C</b> | 2312     | 6032-28    | 6.00 (0.236)   | 3.20 (0.126)                    | 2.60 (0.102)                    | 2.20 (0.087)                 | 1.30 (0.051)                    | 2.90 (0.114) |
| <b>D</b> | 2917     | 7343-31    | 7.30 (0.287)   | 4.30 (0.169)                    | 2.90 (0.114)                    | 2.40 (0.094)                 | 1.30 (0.051)                    | 4.40 (0.173) |
| <b>E</b> | 2917     | 7343-43    | 7.30 (0.287)   | 4.30 (0.169)                    | 4.10 (0.162)                    | 2.40 (0.094)                 | 1.30 (0.051)                    | 4.40 (0.173) |
| <b>V</b> | 2924     | 7361-38    | 7.30 (0.287)   | 6.10 (0.240)                    | 3.55 (0.140)                    | 3.10 (0.122)                 | 1.30 (0.051)                    | 4.40 (0.173) |

W<sub>1</sub> dimension applies to the termination width for A dimensional area only.

### CAPACITANCE AND RATED VOLTAGE, V<sub>R</sub> (MIL VOLTAGE CODE) RANGE LETTER DENOTES CASE SIZE (ESR LIMITS IN PARENTHESES)

| Capacitance |      | Rated Voltage DC (V <sub>R</sub> ) at 85°C |                         |                                 |                            |                           |                                   |                               |                                 |
|-------------|------|--|-------------------------|---------------------------------|----------------------------|---------------------------|-----------------------------------|-------------------------------|---------------------------------|
| μF          | Code | 4V (G)                                     | 6V (J)                  | 10V (A)                         | 16V (C)                    | 20V (D)                   | 25V (E)                           | 35V (V)                       | 50V (T)                         |
| 0.15        | 154  |  |                         |                                 |                            |                           |                                   |                               | A(15000)                        |
| 0.22        | 224  |  |                         |                                 |                            |                           |                                   |                               | A(18000)                        |
| 0.47        | 474  |  |                         |                                 |                            |                           |                                   |                               | A(12000) A(9500)/B(9500)        |
| 0.68        | 684  |  |                         |                                 |                            |                           |                                   |                               | A(8000) A(7900)                 |
| 1.0         | 105  |  |                         |                                 |                            |                           |                                   |                               | A(8000) A(7500) A(6600)/B(7000) |
| 1.5         | 155  |  |                         |                                 |                            | A(6500)                   | A(3000, 7500)                     | A(7500)/B(5200)               | C(2000)/D(1500)                 |
| 2.2         | 225  |  |                         |                                 | A(5500)                    | A(3000)                   | A(7000)/B(2000)                   | B(2000)                       | D(1200)                         |
| 3.3         | 335  |  | A(8000)                 |                                 | A(3500, 5000)              |                           | B(2000)                           | B(1000)                       | D(800)                          |
| 4.7         | 475  |  | A(6000)                 | A(5000)                         | A(2000)                    | A(1800, 4000)<br>B(1000)  | A(3100)<br>B(700, 1500)           | B(1500)<br>C(600)/D(450)      | D(300)                          |
| 6.8         | 685  |  | A(5000)                 | A(4000)                         | A(1500/B(1200))            | B(1000)                   | B(700, 2800)<br>C(700)            | C(350)/D(400)<br>E(300)       | D(300, 600)                     |
| 10          | 106  |  | A(4000)                 | A(1800, 3000)                   | A(3000)/B(900)             | B(500, 1000)<br>C(700)    | C(300, 500)                       | C(1600)/D(125, 300)<br>E(250) |                                 |
| 15          | 156  |  | A(3500)                 | A(1000, 3200)<br>B(600)         | B(500, 800)                | B(500)/C(450)<br>D(275)   | D(275)/E(200)                     | C(450)/D(100, 300)<br>E(225)  |                                 |
| 22          | 226  |  | A(3000)/B(600)          | B(500, 700)<br>C(300)           | B(500, 600)<br>C(150, 375) | B(600)/C(400)<br>D(275)   | C(275, 400)<br>D(100, 200)/E(225) | D(125, 400)<br>E(125, 300)    |                                 |
| 33          | 336  | A(3000)                                    | B(600)                  | A(700)/B(425, 650)<br>C(500)    | C(100, 300)<br>D(250)      | C(300)<br>D(100, 200)     | D(90, 300)<br>E(100, 175)         | D(200, 300)<br>E(300)         |                                 |
| 47          | 476  |  | C(300)                  | C(200, 350)<br>D(200)           | C(110, 350)<br>D(80, 200)  | D(100, 200)<br>E(150)     | D(175, 250)                       | E(250)/V(200)                 |                                 |
| 68          | 686  | A(1500)                                    | B(500)/C(200)<br>D(175) | C(80, 300)<br>D(150)/E(150)     | D(150)                     | D(70, 200)<br>E(150, 200) | V(95)                             |                               |                                 |
| 100         | 107  | A(1400)<br>B(900)                          | C(75, 150)              | C(75, 200)<br>D(50, 100)/E(100) | D(50, 125)<br>E(125)       | V(60)                     |                                   |                               |                                 |
| 150         | 157  |  | D(125)/E(125)           | D(50, 100)/E(100)               | D(60, 150)/V(45)           |                           |                                   |                               |                                 |
| 220         | 227  |  | D(100, 125)<br>E(100)   | D(50, 150)<br>E(50, 100)        | V(50)                      |                           |                                   |                               |                                 |
| 330         | 337  |  | E(50, 150)              | D(50, 150)<br>E(50, 100)/V(40)  |                            |                           |                                   |                               |                                 |
| 470         | 477  |  | E(50, 200)/V(40)        | E(50, 200)/V(40)                |                            |                           |                                   |                               |                                 |
| 1000        | 108  | E(200)                                     |                         |                                 |                            |                           |                                   |                               |                                 |

NOTE: EIA standards for Low ESR solid tantalum capacitors allow an ESR movement of 1.25 times initial limit post mounting.

# TBJ SERIES

## DLA Dwgs 07016 & 95158



### HOW TO ORDER

#### DLA DWG P/N:

**07016**

**-001**

**K**

**B**

**C**

**A**

DLA DWG  
07016

Dash  
Number  
See Rating  
Tables

**Capacitance  
Tolerance**  
K =  $\pm 10\%$   
M =  $\pm 20\%$

**Reliability  
Grade**  
B = B Weibull  
C = C Weibull  
D = D Weibull

#### Termination Finish

B = Gold Plated (10 microinch minimum)  
H = Solder Plated (50 microinch minimum)  
C = Hot Solder Dip (60 microinch minimum)  
\*For Gold Plated Termination Finish, contact  
the factory for availability.



For RoHS compliant products,  
please select correct termination style.

#### Surge Test Option

A = 10 cycles, +25°C  
B = 10 cycles,  
-55°C & +85°C  
C = 10 cycles,  
-55°C & +85°C  
before Weibull  
Z = None required  
Per MIL-PRF-55365

**95158**

**-01**

**K**

**H**

DLA DWG  
95158

Dash  
Number  
See Rating  
Tables

**Capacitance  
Tolerance**  
K =  $\pm 10\%$   
M =  $\pm 20\%$

**Termination Finish**  
B = Gold Plated (10 microinch minimum)  
H = Solder Plated (100 microinch  
minimum)

\*For Gold Plated Termination Finish, contact  
the factory for availability.



For RoHS compliant products,  
please select correct termination style.

### TECHNICAL SPECIFICATIONS

Technical Data: Unless otherwise specified, all technical data relate to an ambient temperature of 25°C

Capacitance Range: 0.15  $\mu$ F to 1000  $\mu$ F

Capacitance Tolerance:  $\pm 10\%$ ;  $\pm 20\%$

|                            |                            |     |   |    |    |    |    |    |    |  |
|----------------------------|----------------------------|-----|---|----|----|----|----|----|----|--|
| Rated Voltage ( $V_R$ )    | $\leq 85^\circ\text{C}$ :  | 4   | 6 | 10 | 16 | 20 | 25 | 35 | 50 |  |
| Category Voltage ( $V_C$ ) | $\leq 125^\circ\text{C}$ : | 2.7 | 4 | 7  | 10 | 13 | 17 | 23 | 33 |  |
| Surge Voltage ( $V_S$ )    | $\leq 85^\circ\text{C}$ :  | 5.2 | 8 | 13 | 20 | 26 | 32 | 46 | 65 |  |
| Surge Voltage ( $V_S$ )    | $\leq 125^\circ\text{C}$ : | 3.4 | 5 | 8  | 12 | 16 | 20 | 28 | 40 |  |

Temperature Range: -55°C to +125°C



The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at [www.kyocera-avx.com/disclaimer/](http://www.kyocera-avx.com/disclaimer/) by reference and should be reviewed in full before placing any order.

# TBJ SERIES

## DLA Dwgs 07016 & 95158



| RATING & PART NUMBER REFERENCE |           | Parametric Specifications by Rating per DLA 95158 or 07016 where applicable |                  |               |         |       |        |        |       |       |       | Typical RMS Ripple Data by Rating |             |             |              |             |             |              |  |
|--------------------------------|-----------|---|------------------|---------------|---------|-------|--------|--------|-------|-------|-------|-----------------------------------|-------------|-------------|--------------|-------------|-------------|--------------|--|
|                                |           | Cap @ 120Hz   | DC Rated Voltage | ESR @ 100kHz  | DCL max |       |        | DF Max |       |       |       | Power Dissipation                 | 25°C Ripple | 85°C Ripple | 125°C Ripple | 25°C Ripple | 85°C Ripple | 125°C Ripple |  |
| DLA P/N                        | Case      |   |                  |               | +25°C   | +85°C | +125°C | +25°C  | +85°C | -55°C | (%)   |                                   |             |             |              |             |             |              |  |
|                                |           | (μF @ 25°C)   | V @ +85°C        | mOhms @ +25°C | (μA)    | (μA)  | (μA)   | (%)    | (%)   | (%)   | (%)   | W                                 | A (100kHz)  | A (100kHz)  | A (100kHz)   | V (100kHz)  | V (100kHz)  | V (100kHz)   |  |
| 07016 001                      | * @ ^ + A | 33  | 4                | 3000          | 1.4     | 14    | 17     | 6      | 9     | 9     | 0.075 | 0.16                              | 0.14        | 0.06        | 0.47         | 0.43        | 0.19        |              |  |
| 07016 002                      | * @ ^ + A | 68  | 4                | 1500          | 2.7     | 27    | 32     | 10     | 12    | 14    | 0.075 | 0.22                              | 0.20        | 0.09        | 0.34         | 0.30        | 0.13        |              |  |
| 07016 003                      | * @ ^ + A | 100   | 4                | 1400          | 4       | 40    | 48     | 30     | 36    | 42    | 0.075 | 0.23                              | 0.21        | 0.09        | 0.32         | 0.29        | 0.13        |              |  |
| 07016 004                      | * @ ^ + B | 100   | 4                | 900           | 4       | 40    | 48     | 8      | 10    | 12    | 0.085 | 0.31                              | 0.28        | 0.12        | 0.28         | 0.25        | 0.11        |              |  |
| 07016 005                      | * @ ^ + E | 1,000   | 4                | 200           | 40      | 400   | 480    | 60     | 90    | 90    | 0.165 | 0.91                              | 0.82        | 0.36        | 0.18         | 0.16        | 0.07        |              |  |
| 07016 006                      | * @ ^ + A | 3.3   | 6                | 8000          | 0.5     | 5     | 6      | 6      | 9     | 9     | 0.075 | 0.10                              | 0.09        | 0.04        | 0.77         | 0.70        | 0.31        |              |  |
| 07016 007                      | * @ ^ + A | 4.7   | 6                | 6000          | 0.5     | 5     | 6      | 6      | 9     | 10    | 0.075 | 0.11                              | 0.10        | 0.04        | 0.67         | 0.60        | 0.27        |              |  |
| 07016 008                      | * @ ^ + A | 6.8   | 6                | 5000          | 0.5     | 5     | 6      | 6      | 9     | 10    | 0.075 | 0.12                              | 0.11        | 0.05        | 0.61         | 0.55        | 0.24        |              |  |
| 07016 009                      | * @ ^ + A | 10  | 6                | 4000          | 0.6     | 10    | 11     | 6      | 9     | 10    | 0.075 | 0.14                              | 0.12        | 0.05        | 0.55         | 0.49        | 0.22        |              |  |
| 07016 010                      | * @ ^ + A | 15  | 6                | 3500          | 0.9     | 10    | 11     | 6      | 9     | 10    | 0.075 | 0.15                              | 0.13        | 0.06        | 0.51         | 0.46        | 0.20        |              |  |
| 07016 011                      | * @ ^ + A | 22  | 6                | 3000          | 1.4     | 14    | 17     | 6      | 9     | 10    | 0.075 | 0.16                              | 0.14        | 0.06        | 0.47         | 0.43        | 0.19        |              |  |
| 07016 012                      | * @ ^ + B | 22  | 6                | 600           | 1.4     | 14    | 17     | 6      | 9     | 10    | 0.085 | 0.38                              | 0.34        | 0.15        | 0.23         | 0.20        | 0.09        |              |  |
| 07016 013                      | * @ ^ + B | 33  | 6                | 600           | 2.1     | 21    | 25     | 6      | 9     | 10    | 0.085 | 0.38                              | 0.34        | 0.15        | 0.23         | 0.20        | 0.09        |              |  |
| 07016 014                      | * @ ^ + C | 47  | 6                | 300           | 3       | 30    | 36     | 6      | 9     | 10    | 0.110 | 0.61                              | 0.54        | 0.24        | 0.18         | 0.16        | 0.07        |              |  |
| 07016 015                      | * @ ^ + B | 68  | 6                | 500           | 4.3     | 43    | 51     | 8      | 10    | 12    | 0.085 | 0.41                              | 0.37        | 0.16        | 0.21         | 0.19        | 0.08        |              |  |
| 07016 016                      | * @ ^ + C | 68  | 6                | 200           | 4.3     | 43    | 51     | 6      | 9     | 10    | 0.110 | 0.74                              | 0.67        | 0.30        | 0.15         | 0.13        | 0.06        |              |  |
| 95158 01                       | * ^ D     | 68  | 6                | 175           | 3.3     | 19.8  | 33     | 4      | 6     | 6     | 0.150 | 0.93                              | 0.83        | 0.37        | 0.16         | 0.15        | 0.06        |              |  |
| 07016 017                      | * @ ^ + C | 100   | 6                | 150           | 6.3     | 63    | 76     | 6      | 9     | 10    | 0.110 | 0.86                              | 0.77        | 0.34        | 0.13         | 0.12        | 0.05        |              |  |
| 07016 018                      | * @ ^ + C | 100   | 6                | 75            | 6.3     | 63    | 76     | 6      | 9     | 10    | 0.110 | 1.21                              | 1.09        | 0.48        | 0.09         | 0.08        | 0.04        |              |  |
| 07016 019                      | * @ ^ + D | 150   | 6                | 125           | 9.5     | 95    | 113    | 6      | 9     | 10    | 0.150 | 1.10                              | 0.99        | 0.44        | 0.14         | 0.12        | 0.05        |              |  |
| 95158 02                       | * ^ E     | 150   | 6                | 125           | 7.2     | 43.2  | 72     | 6      | 8     | 8     | 0.165 | 1.15                              | 1.03        | 0.46        | 0.14         | 0.13        | 0.06        |              |  |
| 07016 020                      | * @ ^ + D | 220   | 6                | 125           | 13.9    | 139   | 166    | 8      | 10    | 12    | 0.150 | 1.10                              | 0.99        | 0.44        | 0.14         | 0.12        | 0.05        |              |  |
| 95158 25                       | * ^ D     | 220   | 6                | 100           | 13.2    | 132   | 165    | 8      | 10    | 12    | 0.150 | 1.22                              | 1.10        | 0.49        | 0.12         | 0.11        | 0.05        |              |  |
| 95158 03                       | * ^ E     | 220   | 6                | 100           | 13.2    | 132   | 165    | 8      | 12    | 12    | 0.165 | 1.28                              | 1.16        | 0.51        | 0.13         | 0.12        | 0.05        |              |  |
| 07016 021                      | * @ ^ + E | 330   | 6                | 150           | 20.8    | 208   | 249    | 8      | 10    | 12    | 0.165 | 1.05                              | 0.94        | 0.42        | 0.16         | 0.14        | 0.06        |              |  |
| 07016 022                      | * @ ^ + E | 330   | 6                | 50            | 20.8    | 208   | 249    | 8      | 10    | 12    | 0.165 | 1.82                              | 1.63        | 0.73        | 0.09         | 0.08        | 0.04        |              |  |
| 07016 023                      | M @ ^ + E | 470   | 6                | 200           | 29.6    | 296   | 355    | 10     | 12    | 14    | 0.165 | 0.91                              | 0.82        | 0.36        | 0.18         | 0.16        | 0.07        |              |  |
| 07016 024                      | M @ ^ + E | 470   | 6                | 50            | 29.6    | 296   | 355    | 10     | 12    | 14    | 0.165 | 1.82                              | 1.63        | 0.73        | 0.09         | 0.08        | 0.04        |              |  |
| 07016 025                      | * @ ^ + V | 470   | 6                | 40            | 29.6    | 296   | 355    | 10     | 12    | 12    | 0.250 | 2.50                              | 2.25        | 1.00        | 0.10         | 0.09        | 0.04        |              |  |
| 07016 026                      | * @ ^ + A | 4.7   | 10               | 5000          | 0.5     | 5     | 6      | 6      | 9     | 10    | 0.075 | 0.12                              | 0.11        | 0.05        | 0.61         | 0.55        | 0.24        |              |  |
| 07016 027                      | * @ ^ + A | 6.8   | 10               | 4000          | 0.7     | 7     | 8      | 6      | 9     | 10    | 0.075 | 0.14                              | 0.12        | 0.05        | 0.55         | 0.49        | 0.22        |              |  |
| 07016 028                      | * @ ^ + A | 10  | 10               | 3000          | 1       | 10    | 12     | 6      | 9     | 10    | 0.075 | 0.16                              | 0.14        | 0.06        | 0.47         | 0.43        | 0.19        |              |  |
| 07016 029                      | * @ ^ + A | 10  | 10               | 1800          | 1       | 10    | 12     | 6      | 9     | 10    | 0.075 | 0.20                              | 0.18        | 0.08        | 0.37         | 0.33        | 0.15        |              |  |
| 07016 030                      | * @ ^ + A | 15  | 10               | 3200          | 1.6     | 16    | 19     | 6      | 9     | 10    | 0.075 | 0.15                              | 0.14        | 0.06        | 0.49         | 0.44        | 0.20        |              |  |
| 07016 031                      | * @ ^ + A | 15  | 10               | 1000          | 1.6     | 16    | 19     | 6      | 9     | 10    | 0.075 | 0.27                              | 0.25        | 0.11        | 0.27         | 0.25        | 0.11        |              |  |
| 07016 032                      | * @ ^ + B | 15  | 10               | 600           | 1.6     | 16    | 19     | 6      | 9     | 10    | 0.085 | 0.38                              | 0.34        | 0.15        | 0.23         | 0.20        | 0.09        |              |  |
| 07016 033                      | * @ ^ + B | 22  | 10               | 700           | 2.2     | 22    | 26     | 6      | 9     | 10    | 0.085 | 0.35                              | 0.31        | 0.14        | 0.24         | 0.22        | 0.10        |              |  |
| 07016 034                      | * @ ^ + B | 22  | 10               | 500           | 2.2     | 22    | 26     | 6      | 9     | 10    | 0.085 | 0.41                              | 0.37        | 0.16        | 0.21         | 0.19        | 0.08        |              |  |
| 07016 035                      | * @ ^ + C | 22  | 10               | 300           | 2.2     | 22    | 26     | 6      | 9     | 10    | 0.110 | 0.61                              | 0.54        | 0.24        | 0.18         | 0.16        | 0.07        |              |  |
| 07016 036                      | * @ ^ + A | 33  | 10               | 700           | 3.3     | 33    | 40     | 8      | 10    | 12    | 0.075 | 0.33                              | 0.29        | 0.13        | 0.23         | 0.21        | 0.09        |              |  |
| 07016 037                      | * @ ^ + B | 33  | 10               | 650           | 3.3     | 33    | 40     | 6      | 9     | 10    | 0.085 | 0.36                              | 0.33        | 0.14        | 0.24         | 0.21        | 0.09        |              |  |
| 07016 038                      | * @ ^ + B | 33  | 10               | 425           | 3.3     | 33    | 40     | 6      | 9     | 10    | 0.085 | 0.45                              | 0.40        | 0.18        | 0.19         | 0.17        | 0.08        |              |  |
| 07016 039                      | * @ ^ + C | 33  | 10               | 500           | 3.3     | 33    | 40     | 6      | 9     | 10    | 0.110 | 0.47                              | 0.42        | 0.19        | 0.23         | 0.21        | 0.09        |              |  |
| 07016 040                      | * @ ^ + C | 47  | 10               | 350           | 4.7     | 47    | 56     | 6      | 9     | 10    | 0.110 | 0.56                              | 0.50        | 0.22        | 0.20         | 0.18        | 0.08        |              |  |
| 07016 041                      | * @ ^ + C | 47  | 10               | 200           | 4.7     | 47    | 56     | 6      | 9     | 10    | 0.110 | 0.74                              | 0.67        | 0.30        | 0.15         | 0.13        | 0.06        |              |  |
| 95158 04                       | * ^ D     | 47  | 10               | 200           | 3.8     | 22.8  | 38     | 4      | 6     | 6     | 0.150 | 0.87                              | 0.78        | 0.35        | 0.17         | 0.16        | 0.07        |              |  |
| 07016 042                      | * @ ^ + C | 68  | 10               | 300           | 6.8     | 68    | 82     | 8      | 10    | 12    | 0.110 | 0.61                              | 0.54        | 0.24        | 0.18         | 0.16        | 0.07        |              |  |
| 07016 043                      | * @ ^ + C | 68  | 10               | 80            | 6.8     | 68    | 82     | 8      | 10    | 12    | 0.110 | 1.17                              | 1.06        | 0.47        | 0.09         | 0.08        | 0.04        |              |  |
| 07016 044                      | * @ ^ + D | 68  | 10               | 150           | 6.8     | 68    | 82     | 6      | 9     | 10    | 0.150 | 1.00                              | 0.90        | 0.40        | 0.15         | 0.14        | 0.06        |              |  |
| 95158 05                       | * ^ E     | 68  | 10               | 150           | 5.4     | 32.4  | 54     | 4      | 6     | 6     | 0.165 | 1.05                              | 0.94        | 0.42        | 0.16         | 0.14        | 0.06        |              |  |

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

**NOTE: KYOCERA AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.**



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# TBJ SERIES

## DLA Dwgs 07016 & 95158



| RATING & PART NUMBER REFERENCE |         | Parametric Specifications by Rating per DLA 95158 or 07016 where applicable |                  |              |         |       |        |        |             |       |                   | Typical RMS Ripple Data by Rating |             |              |             |             |              |      |  |
|--------------------------------|---------|---|------------------|--------------|---------|-------|--------|--------|-------------|-------|-------------------|-----------------------------------|-------------|--------------|-------------|-------------|--------------|------|--|
|                                |         | Cap @ 120Hz   | DC Rated Voltage | ESR @ 100kHz | DCL max |       |        | DF Max |             |       | Power Dissipation | 25°C Ripple                       | 85°C Ripple | 125°C Ripple | 25°C Ripple | 85°C Ripple | 125°C Ripple |      |  |
|                                |         |   |                  |              | +25°C   | +85°C | +125°C | +25°C  | (+85/125)°C | -55°C |                   |                                   |             |              |             |             |              |      |  |
| 07016 045                      | * @ ^ + | C   | 100              | 10           | 200     | 10    | 100    | 120    | 8           | 10    | 12                | 0.110                             | 0.74        | 0.67         | 0.30        | 0.15        | 0.13         | 0.06 |  |
| 07016 046                      | * @ ^ + | C   | 100              | 10           | 75      | 10    | 100    | 120    | 8           | 10    | 12                | 0.110                             | 1.21        | 1.09         | 0.48        | 0.09        | 0.08         | 0.04 |  |
| 95158 06                       | * ^     | D   | 100              | 10           | 100     | 10    | 100    | 125    | 8           | 12    | 12                | 0.150                             | 1.22        | 1.10         | 0.49        | 0.12        | 0.11         | 0.05 |  |
| 07016 047                      | * @ ^ + | D   | 100              | 10           | 50      | 10    | 100    | 120    | 6           | 9     | 10                | 0.150                             | 1.73        | 1.56         | 0.69        | 0.09        | 0.08         | 0.03 |  |
| 95158 07                       | * ^     | E   | 100              | 10           | 100     | 8     | 48     | 80     | 6           | 8     | 8                 | 0.165                             | 1.28        | 1.16         | 0.51        | 0.13        | 0.12         | 0.05 |  |
| 95158 26                       | * ^     | D   | 150              | 10           | 100     | 15    | 150    | 187.5  | 8           | 10    | 12                | 0.150                             | 1.22        | 1.10         | 0.49        | 0.12        | 0.11         | 0.05 |  |
| 07016 048                      | * @ ^ + | D   | 150              | 10           | 50      | 15    | 150    | 180    | 8           | 10    | 12                | 0.150                             | 1.73        | 1.56         | 0.69        | 0.09        | 0.08         | 0.03 |  |
| 95158 08                       | * ^     | E   | 150              | 10           | 100     | 15    | 150    | 187.5  | 8           | 12    | 12                | 0.165                             | 1.28        | 1.16         | 0.51        | 0.13        | 0.12         | 0.05 |  |
| 07016 049                      | * @ ^ + | D   | 220              | 10           | 150     | 22    | 220    | 264    | 8           | 10    | 12                | 0.150                             | 1.00        | 0.90         | 0.40        | 0.15        | 0.14         | 0.06 |  |
| 07016 050                      | M @ ^ + | D   | 220              | 10           | 50      | 15    | 150    | 180    | 8           | 10    | 12                | 0.150                             | 1.73        | 1.56         | 0.69        | 0.09        | 0.08         | 0.03 |  |
| 95158 28                       | * ^     | E   | 220              | 10           | 100     | 15    | 150    | 187.5  | 8           | 10    | 12                | 0.165                             | 1.28        | 1.16         | 0.51        | 0.13        | 0.12         | 0.05 |  |
| 07016 051                      | * @ ^ + | E   | 220              | 10           | 50      | 22    | 220    | 264    | 8           | 10    | 12                | 0.165                             | 1.82        | 1.63         | 0.73        | 0.09        | 0.08         | 0.04 |  |
| 07016 052                      | M @ ^ + | D   | 330              | 10           | 150     | 33    | 330    | 396    | 8           | 10    | 12                | 0.150                             | 1.00        | 0.90         | 0.40        | 0.15        | 0.14         | 0.06 |  |
| 07016 053                      | M @ ^ + | D   | 330              | 10           | 50      | 33    | 330    | 396    | 8           | 10    | 12                | 0.150                             | 1.73        | 1.56         | 0.69        | 0.09        | 0.08         | 0.03 |  |
| 07016 054                      | * @ ^ + | E   | 330              | 10           | 100     | 33    | 330    | 396    | 8           | 10    | 12                | 0.165                             | 1.28        | 1.16         | 0.51        | 0.13        | 0.12         | 0.05 |  |
| 07016 055                      | * @ ^ + | E   | 330              | 10           | 50      | 33    | 330    | 396    | 8           | 10    | 12                | 0.165                             | 1.82        | 1.63         | 0.73        | 0.09        | 0.08         | 0.04 |  |
| 07016 056                      | * @ ^ + | V   | 330              | 10           | 40      | 33    | 330    | 396    | 8           | 10    | 12                | 0.250                             | 2.50        | 2.25         | 1.00        | 0.10        | 0.09         | 0.04 |  |
| 07016 057                      | M @ ^ + | E   | 470              | 10           | 200     | 47    | 470    | 564    | 10          | 12    | 14                | 0.165                             | 0.91        | 0.82         | 0.36        | 0.18        | 0.16         | 0.07 |  |
| 07016 058                      | M @ ^ + | E   | 470              | 10           | 50      | 47    | 470    | 564    | 10          | 12    | 14                | 0.165                             | 1.82        | 1.63         | 0.73        | 0.09        | 0.08         | 0.04 |  |
| 07016 059                      | * @ ^ + | V   | 470              | 10           | 40      | 47    | 470    | 564    | 10          | 12    | 14                | 0.250                             | 2.50        | 2.25         | 1.00        | 0.10        | 0.09         | 0.04 |  |
| 07016 060                      | * @ ^ + | A   | 2.2              | 16           | 5500    | 0.5   | 5      | 6      | 6           | 9     | 10                | 0.075                             | 0.12        | 0.11         | 0.05        | 0.64        | 0.58         | 0.26 |  |
| 07016 061                      | * @ ^ + | A   | 3.3              | 16           | 5000    | 0.5   | 5      | 6      | 6           | 9     | 10                | 0.075                             | 0.12        | 0.11         | 0.05        | 0.61        | 0.55         | 0.24 |  |
| 07016 062                      | * @ ^ + | A   | 3.3              | 16           | 3500    | 0.5   | 5      | 6      | 6           | 9     | 10                | 0.075                             | 0.15        | 0.13         | 0.06        | 0.51        | 0.46         | 0.20 |  |
| 07016 063                      | * @ ^ + | A   | 4.7              | 16           | 2000    | 0.8   | 8      | 10     | 6           | 9     | 10                | 0.075                             | 0.19        | 0.17         | 0.08        | 0.39        | 0.35         | 0.15 |  |
| 07016 064                      | * @ ^ + | A   | 6.8              | 16           | 1500    | 1.1   | 11     | 13     | 6           | 9     | 10                | 0.075                             | 0.22        | 0.20         | 0.09        | 0.34        | 0.30         | 0.13 |  |
| 07016 065                      | * @ ^ + | B   | 6.8              | 16           | 1200    | 1.1   | 11     | 13     | 6           | 9     | 10                | 0.085                             | 0.27        | 0.24         | 0.11        | 0.32        | 0.29         | 0.13 |  |
| 07016 066                      | * @ ^ + | A   | 10               | 16           | 3000    | 1.6   | 16     | 19     | 6           | 9     | 10                | 0.075                             | 0.16        | 0.14         | 0.06        | 0.47        | 0.43         | 0.19 |  |
| 07016 067                      | * @ ^ + | B   | 10               | 16           | 900     | 1.6   | 16     | 19     | 6           | 9     | 10                | 0.085                             | 0.32        | 0.29         | 0.13        | 0.26        | 0.23         | 0.10 |  |
| 07016 068                      | * @ ^ + | B   | 15               | 16           | 800     | 2.4   | 24     | 29     | 6           | 9     | 10                | 0.085                             | 0.33        | 0.29         | 0.13        | 0.26        | 0.23         | 0.10 |  |
| 07016 069                      | * @ ^ + | B   | 15               | 16           | 500     | 2.4   | 24     | 29     | 6           | 9     | 10                | 0.085                             | 0.41        | 0.37         | 0.16        | 0.21        | 0.19         | 0.08 |  |
| 07016 070                      | * @ ^ + | B   | 22               | 16           | 600     | 3.6   | 36     | 43     | 6           | 9     | 10                | 0.085                             | 0.38        | 0.34         | 0.15        | 0.23        | 0.20         | 0.09 |  |
| 07016 071                      | * @ ^ + | C   | 22               | 16           | 375     | 3.6   | 36     | 43     | 6           | 9     | 10                | 0.110                             | 0.54        | 0.49         | 0.22        | 0.20        | 0.18         | 0.08 |  |
| 07016 072                      | * @ ^ + | C   | 22               | 16           | 150     | 3.6   | 36     | 43     | 6           | 9     | 10                | 0.110                             | 0.86        | 0.77         | 0.34        | 0.13        | 0.12         | 0.05 |  |
| 07016 073                      | * @ ^ + | B   | 22               | 16           | 500     | 3.6   | 36     | 43     | 6           | 9     | 10                | 0.085                             | 0.41        | 0.37         | 0.16        | 0.21        | 0.19         | 0.08 |  |
| 07016 074                      | * @ ^ + | C   | 33               | 16           | 300     | 5.3   | 53     | 64     | 6           | 9     | 10                | 0.110                             | 0.61        | 0.54         | 0.24        | 0.18        | 0.16         | 0.07 |  |
| 07016 075                      | * @ ^ + | C   | 33               | 16           | 100     | 5.3   | 53     | 64     | 6           | 9     | 10                | 0.110                             | 1.05        | 0.94         | 0.42        | 0.10        | 0.09         | 0.04 |  |
| 95158 09                       | * ^     | D   | 33               | 16           | 250     | 4.2   | 25.2   | 42     | 4           | 6     | 6                 | 0.150                             | 0.77        | 0.70         | 0.31        | 0.19        | 0.17         | 0.08 |  |
| 07016 076                      | * @ ^ + | C   | 47               | 16           | 350     | 7.6   | 76     | 91     | 6           | 9     | 10                | 0.110                             | 0.56        | 0.50         | 0.22        | 0.20        | 0.18         | 0.08 |  |
| 07016 077                      | * @ ^ + | C   | 47               | 16           | 110     | 7.6   | 76     | 91     | 6           | 9     | 10                | 0.110                             | 1.00        | 0.90         | 0.40        | 0.11        | 0.10         | 0.04 |  |
| 07016 078                      | * @ ^ + | D   | 47               | 16           | 80      | 7.6   | 76     | 91     | 6           | 9     | 10                | 0.150                             | 1.37        | 1.23         | 0.55        | 0.11        | 0.10         | 0.04 |  |
| 95158 10                       | * ^     | D   | 47               | 16           | 200     | 7.5   | 75     | 94     | 6           | 9     | 9                 | 0.150                             | 0.87        | 0.78         | 0.35        | 0.17        | 0.16         | 0.07 |  |
| 07016 079                      | * @ ^ + | D   | 68               | 16           | 150     | 10.9  | 109    | 131    | 6           | 9     | 10                | 0.150                             | 1.00        | 0.90         | 0.40        | 0.15        | 0.14         | 0.06 |  |
| 07016 080                      | * @ ^ + | D   | 100              | 16           | 125     | 16    | 160    | 192    | 6           | 9     | 10                | 0.150                             | 1.10        | 0.99         | 0.44        | 0.14        | 0.12         | 0.05 |  |
| 07016 081                      | * @ ^ + | D   | 100              | 16           | 50      | 16    | 160    | 192    | 6           | 9     | 10                | 0.150                             | 1.73        | 1.56         | 0.69        | 0.09        | 0.08         | 0.03 |  |
| 95158 11                       | * ^     | E   | 100              | 16           | 125     | 16    | 160    | 200    | 8           | 12    | 12                | 0.165                             | 1.15        | 1.03         | 0.46        | 0.14        | 0.13         | 0.06 |  |
| 07016 082                      | M @ ^ + | D   | 150              | 16           | 150     | 24    | 240    | 288    | 6           | 9     | 10                | 0.150                             | 1.00        | 0.90         | 0.40        | 0.15        | 0.14         | 0.06 |  |
| 07016 083                      | M @ ^ + | D   | 150              | 16           | 60      | 24    | 240    | 288    | 6           | 9     | 10                | 0.150                             | 1.58        | 1.42         | 0.63        | 0.09        | 0.09         | 0.04 |  |
| 07016 084                      | * @ ^ + | V   | 150              | 16           | 45      | 24    | 480    | 288    | 6           | 8     | 10                | 0.250                             | 2.36        | 2.12         | 0.94        | 0.11        | 0.10         | 0.04 |  |
| 07016 085                      | * @ ^ + | V   | 220              | 16           | 50      | 35.2  | 352    | 422    | 8           | 10    | 12                | 0.250                             | 2.24        | 2.01         | 0.89        | 0.11        | 0.10         | 0.04 |  |
| 07016 086                      | * @ ^ + | A   | 1.5              | 20           | 6500    | 0.5   | 5      | 6      | 6           | 8     | 10                | 0.075                             | 0.11        | 0.10         | 0.04        | 0.70        | 0.63         | 0.28 |  |

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

**NOTE: KYOCERA AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.**



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# TBJ SERIES

## DLA Dwgs 07016 & 95158



| RATING & PART NUMBER REFERENCE |       | Parametric Specifications by Rating per DLA 95158 or 07016 where applicable |                  |               |         |      |      |        |     |     |                   | Typical RMS Ripple Data by Rating |              |              |             |             |              |  |  |
|--------------------------------|-------|---|------------------|---------------|---------|------|------|--------|-----|-----|-------------------|-----------------------------------|--------------|--------------|-------------|-------------|--------------|--|--|
|                                |       | Cap @ 120Hz   | DC Rated Voltage | ESR @ 100kHz  | DCL max |      |      | DF Max |     |     | Power Dissipation | 25°C Ripple                       | 85°C Ripple  | 125°C Ripple | 25°C Ripple | 85°C Ripple | 125°C Ripple |  |  |
|                                |       |   |                  |               | (μA)    | (μA) | (μA) | (%)    | (%) | (%) |                   |                                   |              |              |             |             |              |  |  |
| DLA P/N                        | Case  | μF @ 25°C   | V @ +85°C        | mOhms @ +25°C | (μA)    | (μA) | (μA) | (%)    | (%) | (%) | W                 | (A) (100kHz)                      | (A) (100kHz) | (A) (100kHz) | V (100kHz)  | V (100kHz)  | V (100kHz)   |  |  |
| 07016 087 *                    | @ ^ + | A   | 2.2              | 20            | 3000    | 0.5  | 5    | 6      | 6   | 8   | 0.075             | 0.16                              | 0.14         | 0.06         | 0.47        | 0.43        | 0.19         |  |  |
| 07016 088 *                    | @ ^ + | A   | 4.7              | 20            | 4000    | 1    | 10   | 12     | 6   | 8   | 0.075             | 0.14                              | 0.12         | 0.05         | 0.55        | 0.49        | 0.22         |  |  |
| 07016 089 *                    | @ ^ + | A   | 4.7              | 20            | 1800    | 1    | 10   | 12     | 6   | 8   | 0.075             | 0.20                              | 0.18         | 0.08         | 0.37        | 0.33        | 0.15         |  |  |
| 07016 090 *                    | @ ^ + | B   | 4.7              | 20            | 1000    | 2    | 20   | 24     | 6   | 8   | 0.085             | 0.29                              | 0.26         | 0.12         | 0.29        | 0.26        | 0.12         |  |  |
| 07016 091 *                    | @ ^ + | B   | 6.8              | 20            | 1000    | 1.4  | 14   | 17     | 6   | 8   | 0.085             | 0.29                              | 0.26         | 0.12         | 0.29        | 0.26        | 0.12         |  |  |
| 07016 092 *                    | @ ^ + | B   | 10               | 20            | 1000    | 0.7  | 7    | 8      | 6   | 8   | 0.085             | 0.29                              | 0.26         | 0.12         | 0.29        | 0.26        | 0.12         |  |  |
| 07016 093 *                    | @ ^ + | B   | 10               | 20            | 500     | 0.7  | 7    | 8      | 6   | 8   | 0.085             | 0.41                              | 0.37         | 0.16         | 0.21        | 0.19        | 0.08         |  |  |
| 07016 094 *                    | @ ^ + | C   | 10               | 20            | 700     | 1.4  | 14   | 17     | 6   | 8   | 0.110             | 0.40                              | 0.36         | 0.16         | 0.28        | 0.25        | 0.11         |  |  |
| 07016 095 *                    | @ ^ + | B   | 15               | 20            | 500     | 3    | 30   | 36     | 6   | 8   | 0.085             | 0.41                              | 0.37         | 0.16         | 0.21        | 0.19        | 0.08         |  |  |
| 07016 096 *                    | @ ^ + | C   | 15               | 20            | 450     | 3    | 30   | 36     | 6   | 8   | 0.110             | 0.49                              | 0.44         | 0.20         | 0.22        | 0.20        | 0.09         |  |  |
| 95158 12 *                     | @ ^   | D   | 15               | 20            | 275     | 2.4  | 14.4 | 24     | 4   | 6   | 0.150             | 0.74                              | 0.66         | 0.30         | 0.20        | 0.18        | 0.08         |  |  |
| 07016 097 *                    | @ ^ + | B   | 22               | 20            | 600     | 4.4  | 44   | 53     | 6   | 8   | 0.085             | 0.38                              | 0.34         | 0.15         | 0.23        | 0.20        | 0.09         |  |  |
| 07016 098 *                    | @ ^ + | C   | 22               | 20            | 400     | 4.4  | 44   | 53     | 6   | 8   | 0.110             | 0.52                              | 0.47         | 0.21         | 0.21        | 0.19        | 0.08         |  |  |
| 95158 13 *                     | @ ^   | D   | 22               | 20            | 275     | 3.5  | 21   | 35     | 4   | 6   | 0.150             | 0.74                              | 0.66         | 0.30         | 0.20        | 0.18        | 0.08         |  |  |
| 07016 099 *                    | @ ^ + | C   | 33               | 20            | 300     | 6.6  | 66   | 79     | 6   | 8   | 0.110             | 0.61                              | 0.54         | 0.24         | 0.18        | 0.16        | 0.07         |  |  |
| 07016 100 *                    | @ ^ + | D   | 33               | 20            | 200     | 6.6  | 66   | 79     | 6   | 8   | 0.150             | 0.87                              | 0.78         | 0.35         | 0.17        | 0.16        | 0.07         |  |  |
| 07016 101 *                    | @ ^ + | D   | 33               | 20            | 100     | 6.6  | 66   | 79     | 6   | 8   | 0.150             | 1.22                              | 1.10         | 0.49         | 0.12        | 0.11        | 0.05         |  |  |
| 07016 102 *                    | @ ^ + | D   | 47               | 20            | 200     | 9.4  | 94   | 113    | 6   | 8   | 0.150             | 0.87                              | 0.78         | 0.35         | 0.17        | 0.16        | 0.07         |  |  |
| 07016 103 *                    | @ ^ + | D   | 47               | 20            | 100     | 9.4  | 94   | 113    | 6   | 8   | 0.150             | 1.22                              | 1.10         | 0.49         | 0.12        | 0.11        | 0.05         |  |  |
| 95158 14 *                     | @ ^   | E   | 47               | 20            | 150     | 7.5  | 45   | 75     | 4   | 6   | 0.165             | 1.05                              | 0.94         | 0.42         | 0.16        | 0.14        | 0.06         |  |  |
| 07016 104 *                    | @ ^ + | D   | 68               | 20            | 200     | 13.6 | 136  | 163    | 6   | 8   | 0.150             | 0.87                              | 0.78         | 0.35         | 0.17        | 0.16        | 0.07         |  |  |
| 07016 105 *                    | @ ^ + | D   | 68               | 20            | 70      | 13.6 | 136  | 163    | 6   | 8   | 0.150             | 1.46                              | 1.32         | 0.59         | 0.10        | 0.09        | 0.04         |  |  |
| 07016 106 *                    | @ ^ + | E   | 68               | 20            | 200     | 13.6 | 136  | 163    | 6   | 8   | 0.165             | 0.91                              | 0.82         | 0.36         | 0.18        | 0.16        | 0.07         |  |  |
| 95158 15 *                     | @ ^   | E   | 68               | 20            | 150     | 13.6 | 136  | 170    | 6   | 8   | 0.165             | 1.05                              | 0.94         | 0.42         | 0.16        | 0.14        | 0.06         |  |  |
| 07016 107 *                    | @ ^ + | V   | 100              | 20            | 60      | 20   | 200  | 240    | 8   | 10  | 0.250             | 2.04                              | 1.84         | 0.82         | 0.12        | 0.11        | 0.05         |  |  |
| 07016 108 M                    | @ ^ + | A   | 0.7              | 25            | 10000   | 0.5  | 5    | 6      | 4   | 6   | 0.075             | 0.09                              | 0.08         | 0.03         | 0.87        | 0.78        | 0.35         |  |  |
| 07016 109 *                    | @ ^ + | A   | 1.0              | 25            | 8000    | 0.5  | 5    | 6      | 4   | 6   | 0.075             | 0.10                              | 0.09         | 0.04         | 0.77        | 0.70        | 0.31         |  |  |
| 07016 110 *                    | @ ^ + | A   | 1.5              | 25            | 7500    | 0.5  | 5    | 6      | 6   | 8   | 0.075             | 0.10                              | 0.09         | 0.04         | 0.75        | 0.68        | 0.30         |  |  |
| 07016 111 *                    | @ ^ + | A   | 1.5              | 25            | 3000    | 0.5  | 5    | 6      | 6   | 8   | 0.075             | 0.16                              | 0.14         | 0.06         | 0.47        | 0.43        | 0.19         |  |  |
| 07016 112 *                    | @ ^ + | A   | 2.2              | 25            | 7000    | 0.5  | 5    | 6      | 6   | 8   | 0.075             | 0.10                              | 0.09         | 0.04         | 0.72        | 0.65        | 0.29         |  |  |
| 07016 113 *                    | @ ^ + | B   | 2.2              | 25            | 2000    | 0.5  | 5    | 6      | 6   | 8   | 0.085             | 0.21                              | 0.19         | 0.08         | 0.41        | 0.37        | 0.16         |  |  |
| 07016 114 *                    | @ ^ + | B   | 3.3              | 25            | 2000    | 0.5  | 5    | 6      | 6   | 8   | 0.085             | 0.21                              | 0.19         | 0.08         | 0.41        | 0.37        | 0.16         |  |  |
| 07016 115 *                    | @ ^ + | A   | 4.7              | 25            | 3100    | 1.2  | 12   | 14     | 6   | 9   | 0.075             | 0.16                              | 0.14         | 0.06         | 0.48        | 0.43        | 0.19         |  |  |
| 07016 116 *                    | @ ^ + | B   | 4.7              | 25            | 1500    | 1.2  | 12   | 14     | 6   | 8   | 0.085             | 0.24                              | 0.21         | 0.10         | 0.36        | 0.32        | 0.14         |  |  |
| 07016 117 *                    | @ ^ + | B   | 4.7              | 25            | 700     | 1.2  | 12   | 14     | 6   | 8   | 0.085             | 0.35                              | 0.31         | 0.14         | 0.24        | 0.22        | 0.10         |  |  |
| 07016 118 *                    | @ ^ + | B   | 6.8              | 25            | 2800    | 1.7  | 17   | 20     | 6   | 8   | 0.085             | 0.17                              | 0.16         | 0.07         | 0.49        | 0.44        | 0.20         |  |  |
| 07016 119 *                    | @ ^ + | B   | 6.8              | 25            | 700     | 1.7  | 17   | 20     | 6   | 8   | 0.085             | 0.35                              | 0.31         | 0.14         | 0.24        | 0.22        | 0.10         |  |  |
| 07016 120 *                    | @ ^ + | C   | 6.8              | 25            | 700     | 1.7  | 17   | 20     | 6   | 8   | 0.110             | 0.40                              | 0.36         | 0.16         | 0.28        | 0.25        | 0.11         |  |  |
| 07016 121 *                    | @ ^ + | C   | 10               | 25            | 500     | 2.5  | 25   | 30     | 6   | 8   | 0.110             | 0.47                              | 0.42         | 0.19         | 0.23        | 0.21        | 0.09         |  |  |
| 07016 122 *                    | @ ^ + | C   | 10               | 25            | 300     | 2.5  | 25   | 30     | 6   | 8   | 0.110             | 0.61                              | 0.54         | 0.24         | 0.18        | 0.16        | 0.07         |  |  |
| 95158 16 *                     | @ ^   | D   | 15               | 25            | 275     | 3.8  | 38   | 46.9   | 6   | 9   | 0.150             | 0.74                              | 0.66         | 0.30         | 0.20        | 0.18        | 0.08         |  |  |
| 95158 17 *                     | @ ^   | E   | 15               | 25            | 200     | 3    | 18   | 30     | 4   | 6   | 0.165             | 0.91                              | 0.82         | 0.36         | 0.18        | 0.16        | 0.07         |  |  |
| 07016 123 *                    | @ ^ + | C   | 22               | 25            | 400     | 5.5  | 55   | 66     | 6   | 8   | 0.110             | 0.52                              | 0.47         | 0.21         | 0.21        | 0.19        | 0.08         |  |  |
| 07016 124 *                    | @ ^ + | C   | 22               | 25            | 275     | 5.5  | 55   | 66     | 6   | 8   | 0.110             | 0.63                              | 0.57         | 0.25         | 0.17        | 0.16        | 0.07         |  |  |
| 07016 125 *                    | @ ^ + | D   | 22               | 25            | 200     | 5.5  | 55   | 66     | 6   | 8   | 0.150             | 0.87                              | 0.78         | 0.35         | 0.17        | 0.16        | 0.07         |  |  |
| 07016 126 *                    | @ ^ + | D   | 22               | 25            | 100     | 5.5  | 55   | 66     | 6   | 8   | 0.150             | 1.22                              | 1.10         | 0.49         | 0.12        | 0.11        | 0.05         |  |  |
| 95158 18 *                     | @ ^   | E   | 22               | 25            | 225     | 4.4  | 26.4 | 44     | 4   | 6   | 0.165             | 0.86                              | 0.77         | 0.34         | 0.19        | 0.17        | 0.08         |  |  |
| 07016 127 *                    | @ ^ + | D   | 33               | 25            | 300     | 8.3  | 83   | 100    | 6   | 8   | 0.150             | 0.71                              | 0.64         | 0.28         | 0.21        | 0.19        | 0.08         |  |  |
| 07016 128 *                    | @ ^ + | D   | 33               | 25            | 90      | 8.3  | 83   | 100    | 6   | 8   | 0.150             | 1.22                              | 1.10         | 0.49         | 0.12        | 0.11        | 0.05         |  |  |
| 95158 19 *                     | @ ^   | E   | 33               | 25            | 175     | 6.6  | 39.6 | 66     | 4   | 6   | 0.165             | 0.97                              | 0.87         | 0.39         | 0.17        | 0.15        | 0.07         |  |  |

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

**NOTE: KYOCERA AVX reserves the right to supply a higher voltage rating or tighter tolerance part in the same case size, to the same reliability standards.**

# TBJ SERIES

## DLA Dwgs 07016 & 95158



| RATING & PART NUMBER REFERENCE |         | Parametric Specifications by Rating per DLA 95158 or 07016 where applicable |                  |                  |         |       |        |        |       |       |                   | Typical RMS Ripple Data by Rating |             |              |             |             |              |            |  |
|--------------------------------|---------|---|------------------|------------------|---------|-------|--------|--------|-------|-------|-------------------|-----------------------------------|-------------|--------------|-------------|-------------|--------------|------------|--|
|                                |         | Cap @ 120Hz   | DC Rated Voltage | ESR @ 100kHz     | DCL max |       |        | DF Max |       |       | Power Dissipation | 25°C Ripple                       | 85°C Ripple | 125°C Ripple | 25°C Ripple | 85°C Ripple | 125°C Ripple |            |  |
| DLA P/N                        | Case    |   |                  |                  | +25°C   | +85°C | +125°C | +25°C  | +85°C | -55°C |                   |                                   |             |              |             |             |              |            |  |
|                                |         | μF<br>@ 25°C  | V<br>@ +85°C     | mOhms<br>@ +25°C | (μA)    | (μA)  | (μA)   | (%)    | (%)   | (%)   | W                 | A (100kHz)                        | A (100kHz)  | A (100kHz)   | V (100kHz)  | V (100kHz)  | V (100kHz)   | V (100kHz) |  |
| 07016 129                      | * @ ^ + | E   | 33               | 25               | 100     | 8.3   | 83     | 100    | 6     | 8     | 0.165             | 1.35                              | 1.22        | 0.54         | 0.12        | 0.11        | 0.05         |            |  |
| 07016 130                      | M @ ^ + | D   | 47               | 25               | 250     | 11.8  | 118    | 142    | 6     | 8     | 0.150             | 0.77                              | 0.70        | 0.31         | 0.19        | 0.17        | 0.08         |            |  |
| 07016 131                      | M @ ^ + | D   | 47               | 25               | 175     | 11.8  | 118    | 142    | 6     | 8     | 0.150             | 0.93                              | 0.83        | 0.37         | 0.16        | 0.15        | 0.06         |            |  |
| 07016 132                      | * @ ^ + | V   | 68               | 25               | 95      | 17    | 170    | 204    | 8     | 10    | 0.250             | 1.62                              | 1.46        | 0.65         | 0.15        | 0.14        | 0.06         |            |  |
| 07016 133                      | M @ ^ + | A   | 0.47             | 35               | 12000   | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.08                              | 0.07        | 0.03         | 0.95        | 0.85        | 0.38         |            |  |
| 07016 134                      | M @ ^ + | A   | 0.68             | 35               | 8000    | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.10                              | 0.09        | 0.04         | 0.77        | 0.70        | 0.31         |            |  |
| 07016 135                      | * @ ^ + | A   | 1.0              | 35               | 7500    | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.10                              | 0.09        | 0.04         | 0.75        | 0.68        | 0.30         |            |  |
| 07016 136                      | * @ ^ + | A   | 1.5              | 35               | 7500    | 0.5   | 5      | 6      | 6     | 8     | 0.075             | 0.10                              | 0.09        | 0.04         | 0.75        | 0.68        | 0.30         |            |  |
| 07016 137                      | * @ ^ + | B   | 1.5              | 35               | 5200    | 0.5   | 5      | 6      | 6     | 8     | 0.085             | 0.13                              | 0.12        | 0.05         | 0.66        | 0.60        | 0.27         |            |  |
| 07016 138                      | * @ ^ + | B   | 2.2              | 35               | 2000    | 0.8   | 8      | 10     | 6     | 8     | 0.085             | 0.21                              | 0.19        | 0.08         | 0.41        | 0.37        | 0.16         |            |  |
| 07016 139                      | * @ ^ + | B   | 3.3              | 35               | 1000    | 1.2   | 12     | 14     | 6     | 8     | 0.085             | 0.29                              | 0.26        | 0.12         | 0.29        | 0.26        | 0.12         |            |  |
| 07016 140                      | * @ ^ + | B   | 4.7              | 35               | 1500    | 1.6   | 16     | 19     | 6     | 8     | 0.085             | 0.24                              | 0.21        | 0.10         | 0.36        | 0.32        | 0.14         |            |  |
| 95158 29                       | * ^     | C   | 4.7              | 35               | 600     | 1.7   | 10.2   | 17     | 6     | 8     | 0.110             | 0.43                              | 0.39        | 0.17         | 0.26        | 0.23        | 0.10         |            |  |
| 07016 141                      | * @ ^ + | D   | 4.7              | 35               | 450     | 1.6   | 16     | 20     | 6     | 8     | 0.110             | 0.49                              | 0.44        | 0.20         | 0.22        | 0.20        | 0.09         |            |  |
| 07016 142                      | * @ ^ + | C   | 6.8              | 35               | 350     | 2.4   | 24     | 29     | 6     | 9     | 0.150             | 0.65                              | 0.59        | 0.26         | 0.23        | 0.21        | 0.09         |            |  |
| 07016 143                      | * @ ^ + | D   | 6.8              | 35               | 400     | 2.4   | 24     | 29     | 6     | 9     | 0.165             | 0.64                              | 0.58        | 0.26         | 0.26        | 0.23        | 0.10         |            |  |
| 95158 20                       | * ^     | E   | 6.8              | 35               | 300     | 1.9   | 11.4   | 19     | 4     | 6     | 0.165             | 0.74                              | 0.67        | 0.30         | 0.22        | 0.20        | 0.09         |            |  |
| 07016 144                      | * @ ^ + | C   | 10               | 35               | 1600    | 3.5   | 35     | 42     | 6     | 9     | 0.110             | 0.26                              | 0.24        | 0.10         | 0.42        | 0.38        | 0.17         |            |  |
| 95158 27                       | * ^     | D   | 10               | 35               | 300     | 3.5   | 35     | 42     | 4     | 6     | 0.150             | 0.71                              | 0.64        | 0.28         | 0.21        | 0.19        | 0.08         |            |  |
| 07016 145                      | * @ ^ + | D   | 10               | 35               | 125     | 3.5   | 35     | 42     | 6     | 9     | 0.150             | 1.10                              | 0.99        | 0.44         | 0.14        | 0.12        | 0.05         |            |  |
| 95158 21                       | * ^     | E   | 10               | 35               | 250     | 2.8   | 16.8   | 28     | 4     | 6     | 0.165             | 0.81                              | 0.73        | 0.32         | 0.20        | 0.18        | 0.08         |            |  |
| 07016 146                      | * @ ^ + | C   | 15               | 35               | 450     | 5.3   | 53     | 64     | 6     | 9     | 0.110             | 0.49                              | 0.44        | 0.20         | 0.22        | 0.20        | 0.09         |            |  |
| 07016 147                      | * @ ^ + | D   | 15               | 35               | 300     | 5.3   | 53     | 64     | 6     | 9     | 0.150             | 0.71                              | 0.64        | 0.28         | 0.21        | 0.19        | 0.08         |            |  |
| 07016 148                      | * @ ^ + | D   | 15               | 35               | 100     | 5.3   | 53     | 64     | 6     | 9     | 0.150             | 1.22                              | 1.10        | 0.49         | 0.12        | 0.11        | 0.05         |            |  |
| 95158 22                       | * ^     | E   | 15               | 35               | 225     | 5.3   | 53     | 65.6   | 6     | 9     | 0.165             | 0.86                              | 0.77        | 0.34         | 0.19        | 0.17        | 0.08         |            |  |
| 07016 149                      | * @ ^ + | D   | 22               | 35               | 400     | 7.7   | 77     | 92     | 6     | 9     | 0.150             | 0.61                              | 0.55        | 0.24         | 0.24        | 0.22        | 0.10         |            |  |
| 07016 150                      | * @ ^ + | D   | 22               | 35               | 125     | 7.7   | 77     | 92     | 6     | 9     | 0.150             | 1.10                              | 0.99        | 0.44         | 0.14        | 0.12        | 0.05         |            |  |
| 95158 23                       | * ^     | E   | 22               | 35               | 300     | 7.7   | 77     | 96.3   | 6     | 9     | 0.165             | 0.74                              | 0.67        | 0.30         | 0.22        | 0.20        | 0.09         |            |  |
| 07016 151                      | * @ ^ + | E   | 22               | 35               | 125     | 7.7   | 77     | 92     | 6     | 9     | 0.165             | 1.15                              | 1.03        | 0.46         | 0.14        | 0.13        | 0.06         |            |  |
| 07016 152                      | M @ ^ + | D   | 33               | 35               | 300     | 11.6  | 116    | 139    | 6     | 9     | 0.150             | 0.71                              | 0.64        | 0.28         | 0.21        | 0.19        | 0.08         |            |  |
| 07016 153                      | M @ ^ + | D   | 33               | 35               | 200     | 11.6  | 116    | 139    | 6     | 9     | 0.150             | 0.87                              | 0.78        | 0.35         | 0.17        | 0.16        | 0.07         |            |  |
| 07016 154                      | M @ ^ + | E   | 33               | 35               | 300     | 11.6  | 116    | 139    | 6     | 9     | 0.165             | 0.74                              | 0.67        | 0.30         | 0.22        | 0.20        | 0.09         |            |  |
| 07016 155                      | M @ ^ + | E   | 47               | 35               | 250     | 16.5  | 165    | 197    | 6     | 9     | 0.165             | 0.81                              | 0.73        | 0.32         | 0.20        | 0.18        | 0.08         |            |  |
| 07016 156                      | M @ ^ + | V   | 47               | 35               | 200     | 16.5  | 165    | 197    | 6     | 9     | 0.250             | 1.12                              | 1.01        | 0.45         | 0.22        | 0.20        | 0.09         |            |  |
| 07016 157                      | M @ ^ + | A   | 0.15             | 50               | 15000   | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.07                              | 0.06        | 0.03         | 1.06        | 0.95        | 0.42         |            |  |
| 07016 158                      | M @ ^ + | A   | 0.22             | 50               | 18000   | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.06                              | 0.06        | 0.03         | 1.16        | 1.05        | 0.46         |            |  |
| 07016 159                      | * @ ^ + | A   | 0.47             | 50               | 9500    | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.09                              | 0.08        | 0.04         | 0.84        | 0.76        | 0.34         |            |  |
| 07016 160                      | * @ ^ + | B   | 0.47             | 50               | 9500    | 0.5   | 5      | 6      | 4     | 6     | 0.085             | 0.09                              | 0.09        | 0.04         | 0.90        | 0.81        | 0.36         |            |  |
| 07016 161                      | * @ ^ + | A   | 0.68             | 50               | 7900    | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.10                              | 0.09        | 0.04         | 0.77        | 0.69        | 0.31         |            |  |
| 07016 162                      | M @ ^ + | A   | 1.0              | 50               | 6600    | 0.5   | 5      | 6      | 4     | 6     | 0.075             | 0.11                              | 0.10        | 0.04         | 0.70        | 0.63        | 0.28         |            |  |
| 07016 163                      | * @ ^ + | B   | 1.0              | 50               | 7000    | 0.5   | 5      | 6      | 4     | 6     | 0.085             | 0.11                              | 0.10        | 0.04         | 0.77        | 0.69        | 0.31         |            |  |
| 07016 164                      | * @ ^ + | C   | 1.5              | 50               | 2000    | 0.8   | 8      | 10     | 6     | 8     | 0.110             | 0.23                              | 0.21        | 0.09         | 0.47        | 0.42        | 0.19         |            |  |
| 07016 165                      | * @ ^ + | D   | 1.5              | 50               | 1500    | 0.8   | 8      | 10     | 6     | 8     | 0.150             | 0.32                              | 0.28        | 0.13         | 0.47        | 0.43        | 0.19         |            |  |
| 07016 166                      | * @ ^ + | D   | 2.2              | 50               | 1200    | 1.1   | 11     | 13     | 6     | 8     | 0.150             | 0.35                              | 0.32        | 0.14         | 0.42        | 0.38        | 0.17         |            |  |
| 07016 167                      | * @ ^ + | D   | 3.3              | 50               | 800     | 1.7   | 17     | 20     | 6     | 9     | 0.150             | 0.43                              | 0.39        | 0.17         | 0.35        | 0.31        | 0.14         |            |  |
| 07016 168                      | * @ ^ + | D   | 4.7              | 50               | 300     | 2.4   | 24     | 29     | 6     | 9     | 0.150             | 0.71                              | 0.64        | 0.28         | 0.21        | 0.19        | 0.08         |            |  |
| 07016 169                      | * @ ^ + | D   | 6.8              | 50               | 600     | 3.4   | 34     | 41     | 6     | 6     | 0.150             | 0.50                              | 0.45        | 0.20         | 0.30        | 0.27        | 0.12         |            |  |
| 07016 170                      | * @ ^ + | D   | 6.8              | 50               | 300     | 3.4   | 34     | 41     | 6     | 6     | 0.150             | 0.71                              | 0.64        | 0.28         | 0.21        | 0.19        | 0.08         |            |  |

All technical data relates to an ambient temperature of +25°C. Capacitance and DF are measured at 120Hz, 0.5V RMS with a maximum DC bias of 2.2 volts. DCL is measured at rated voltage after 5 minutes.

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