

## DL Series

• 85°C 2,000Hrs assured.

- Non-solvent proof.
- For AMP, AVR.
- General Audio grade.
- RoHS compliant.
- Halogen-free capacitors are also available.

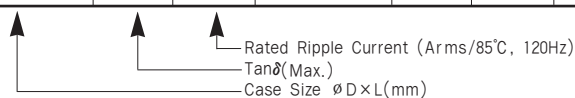


### SPECIFICATIONS

| Item   | Characteristics  |                  |   |                  |    |
|--|--|------------------|---|------------------|----|
| Rated Voltage Range                                | 50 ~ 100 V <sub>DC</sub>   |                  |   |                  |    |
| Operating Temperature Range                        | -40 ~ +85°C  |                  |   |                  |    |
| Capacitance Tolerance                              | ±20%(M) (at 20°C, 120Hz)   |                  |   |                  |    |
| Leakage Current                                    | I = 0.01CV or 2mA, whichever is smaller.<br>Where, I: Leakage current (µA) C: Nominal capacitance (µF)<br>V: Rated voltage (V <sub>DC</sub> ) (at 20°C, 5 minutes)   |                  |   |                  |    |
| Dissipation Factor(Tanδ)                           | Refer to the below table. (at 20°C, 120Hz)   |                  |   |                  |    |
| Temperature Characteristics (Max. Impedance ratio) | <table border="1"> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>15</td> </tr> </table> (at 120Hz)  | Z(-25°C)/Z(20°C) | 4 | Z(-40°C)/Z(20°C) | 15 |
| Z(-25°C)/Z(20°C)                                   | 4  |                  |   |                  |    |
| Z(-40°C)/Z(20°C)                                   | 15   |                  |   |                  |    |
| Load Life  | The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 hours at 85°C.<br>Capacitance change ≤ ±20% of the initial value.<br>Tanδ ≤ 200% of the initial specified value.<br>Leakage current ≤ The initial specified value   |                  |   |                  |    |
| Shelf Life   | The following specifications shall be satisfied when the capacitors are restored to 20°C after the exposing them at 85°C for 1,000 hours without voltage applied.<br>The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements.<br>Capacitance change ≤ ±20% of the initial value.<br>Tanδ ≤ 200% of the initial specified value.<br>Leakage current ≤ The initial specified value. |                  |   |                  |    |
| Charge & Discharge                                 | 5,000 times (at 70°C)<br>After this test is completed, the capacitors shall be satisfied the following specifications<br>Capacitance change ≤ ±20% of the initial value.<br>Tanδ ≤ 150% of the initial specified value.<br>Leakage current ≤ The initial specified value.<br>where, Charge resistance : 2.2Ω Charge conditions: rated volt. 1(A)<br>Discharge resistance: 100Ω Charge and discharge time:30 sec(each)  |                  |   |                  |    |
| Others   | Satisfied characteristics KS C IEC 60384-4   |                  |   |                  |    |

### RATINGS OF DL Series

| µF     | V <sub>DC</sub> | 50        |            |   | 63        |            |   | 80        |            |   | 100       |            |   |
|--------|-----------------|-----------|------------|---|-----------|------------|---|-----------|------------|---|-----------|------------|---|
|        |                 | Case Size | Tanδ(Max.) | Rated Ripple Current (Arms/85°C, 120Hz) | Case Size | Tanδ(Max.) | Rated Ripple Current (Arms/85°C, 120Hz) | Case Size | Tanδ(Max.) | Rated Ripple Current (Arms/85°C, 120Hz) | Case Size | Tanδ(Max.) | Rated Ripple Current (Arms/85°C, 120Hz) |
| 3,300  | 25.4 × 30       | 30 × 25   | 0.20       | 1.81                                    | 25.4 × 40 | 0.20       | 1.96                                    | 25.4 × 50 | 0.20       | 1.07                                    | 30 × 60   | 0.20       | 2.32                                    |
|        |                 | 30 × 30   | 0.20       | 1.86                                    | 30 × 30   | 0.25       | 1.75                                    | 30 × 40   | 0.20       | 1.08                                    | 35 × 50   | 0.20       | 2.32                                    |
|        |                 |           |            |   |           |            |   | 35 × 35   | 0.25       | 1.86                                    | 40 × 40   | 0.25       | 2.28                                    |
| 4,700  | 25.4 × 40       | 30 × 30   | 0.25       | 2.09                                    | 25.4 × 50 | 0.25       | 2.21                                    | 25.4 × 60 | 0.25       | 2.33                                    | 35 × 60   | 0.25       | 2.62                                    |
|        |                 |           |            |   | 30 × 40   | 0.25       | 2.22                                    | 30 × 50   | 0.25       | 2.35                                    | 40 × 50   | 0.25       | 2.61                                    |
|        |                 |           |            |   | 35 × 30   | 0.30       | 2.03                                    | 35 × 40   | 0.30       | 2.73                                    |           |            |   |
| 6,800  | 30 × 40         |           | 0.25       | 2.65                                    | 30 × 50   | 0.30       | 2.58                                    | 30 × 60   | 0.30       | 2.72                                    | 40 × 60   | 0.25       | 3.29                                    |
|        |                 | 35 × 35   | 0.25       | 2.67                                    | 35 × 40   | 0.30       | 2.57                                    | 35 × 50   | 0.30       | 2.72                                    |           |            |   |
|        |                 |           |            |   |           |            |   | 40 × 40   | 0.30       | 2.72                                    |           |            |   |
| 8,200  | 30 × 50         |           | 0.35       | 2.63                                    | 30 × 60   | 0.35       | 2.77                                    | 35 × 60   | 0.30       | 3.16                                    |           |            |   |
|        |                 | 35 × 40   | 0.35       | 2.61                                    | 35 × 50   | 0.35       | 2.77                                    | 40 × 50   | 0.30       | 3.15                                    |           |            |   |
|        |                 |           |            |   | 40 × 40   | 0.35       | 2.77                                    |           |            |   |           |            |   |
| 10,000 | 30 × 50         |           | 0.35       | 2.90                                    | 35 × 60   | 0.35       | 3.23                                    | 40 × 60   | 0.35       | 3.37                                    |           |            |   |
|        |                 |           |            |   | 40 × 50   | 0.35       | 3.22                                    |           |            |   |           |            |   |
|        |                 |           |            |   |           |            |   |           |            |   |           |            |   |
| 12,000 | 30 × 60         |           | 0.35       | 3.32                                    | 35 × 60   | 0.40       | 3.31                                    | 50 × 50   | 0.40       | 3.50                                    |           |            |   |
|        |                 | 35 × 50   | 0.35       | 3.34                                    | 40 × 50   | 0.40       | 3.30                                    |           |            |   |           |            |   |
|        |                 | 40 × 40   | 0.35       | 3.35                                    |           |            |   |           |            |   |           |            |   |
| 15,000 | 35 × 60         |           | 0.35       | 3.85                                    | 40 × 60   | 0.40       | 3.86                                    |           |            |   |           |            |   |
|        |                 | 40 × 50   | 0.35       | 3.92                                    |           |            |   |           |            |   |           |            |   |
| 22,000 | 40 × 60         | 0.35      | 5.00       |   |           |            |   |           |            |   |           |            |   |



DIMENSIONS : Refer to next page.