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## **RADIAL TYPE**





- Has a high ripple current, low IMP & low ESR and long life characteristics.
- Suitable for output of M/B and switching power supplies.

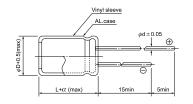


#### SPECIFICATION

| Item                               | Characteristic   |  |      |      |  |      |  |
|------------------------------------|--|--|------|------|--|------|--|
| Operation Temperature Range        | -40 ~ +105°C   |  |      |      |  |      |  |
| Rated Working Voltage              | 6.3 ~ 25VDC  |  |      |      |  |      |  |
| Capacitance Tolerance (120Hz 20°C) |  | ±20%(M)                                  |      |      |  |      |  |
| Leakage Current (20°C)             | I ≦0.03CV or 3 ( μA )  |  |      |      | I : Leakage Current $(\mu A)$<br>C : Rated Capacitance $(\mu F)$ |      |  |
| (20 0)                             | *Whichever is greater after 2 minutes  |  |      |      | V: Working Voltage (V)   |      |  |
| Surge Voltage                      | W.V.   |  | 6.3  | 10   | 16   | 25   |  |
| (20°C)                             | S.V.   |  | 8    | 13   | 20   | 32   |  |
|                                    | Add 0.02 per 1000 μF for more than 1000 μF   |  |      |      |  |      |  |
| Dissipation Factor (tan $\delta$ ) | W.V.   |  | 6.3  | 10   | 16   | 25   |  |
| (120Hz 20°C)                       | $	an\delta$  |  | 0.22 | 0.19 | 0.16   | 0.16 |  |
|                                    | Impedance ratio at 120Hz   |  |      |      |  |      |  |
| Low Temperature Stability          | Rated Voltage (V)  |  | 6.3  | 10   | 16   | 25   |  |
| l somporataro otazimi,             | -25°C / +20°C  |  | 2    | 2    | 2  | 2    |  |
|                                    | -40°C / +20°C  |  | 3    | 3    | 3  | 3    |  |
|                                    | After 2000 hours application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≦ rate working voltage) |  |      |      |  |      |  |
| Load Life                          | Capacitance Change   | apacitance Change ≤±25% of initial value |      |      |  |      |  |
|                                    | Dissipation Factor   | ≦200% of initial specified value         |      |      |  |      |  |
|                                    | Leakage current ≦initial specified value   |  |      |      |  |      |  |
| Shelf Life                         | At +105°C no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (with voltage treatment)                         |  |      |      |  |      |  |

### DIMENSIONS (mm)

| $\phiD$ | 8   | 10  | 12.5 |
|---------|-----|-----|------|
| F       | 3.5 | 5.0 | 5.0  |
| d       | 0.6 | 0.6 | 0.6  |
| α       | 1.5 | 1.5 | 1.5  |





### RIPPLE CURRENT COEFFICIENTS

| Temperature(°C) | ≦65 | 85  | 105 |
|-----------------|-----|-----|-----|
| Multiplier      | 2.1 | 1.7 | 1.0 |

| Frequency(Hz) | 120  | 1k   | 10k  | ≧100k |
|---------------|------|------|------|-------|
| Multiplier    | 0.50 | 0.80 | 0.90 | 1.00  |





### CASE SIZE & MAX RIPPLE CURRENT

| V(Code)  |         |         | 6.3 (0J) |       |         | 10 (1A) |      |
|----------|---------|---------|----------|-------|---------|---------|------|
| μF       | Code    | DxL     | E.S.R.   | R.C.  | DxL     | E.S.R.  | R.C. |
| 680      | 681     |         |          |       | 8x14    | 0.036   | 1230 |
| 820      | 821     | 8x11.5  | 0.036    | 1230  |         |         |      |
| 1000     | 102     | 8x16    | 0.028    | 1560  | 8x16    | 0.028   | 1660 |
| 1000     | 102     |         |          |       | 10x12.5 | 0.028   | 1700 |
| 1200     | 122     | 8x16    | 0.028    | 1710  |         |         |      |
| 1500     | 150     | 8x20    | 0.018    | 2040  | 8x20    | 0.019   | 2150 |
| 1500 152 | 10x12.5 | 0.020   | 1760     | 10x16 | 0.019   | 2200    |      |
| 1800     | 182     | 10x16   | 0.018    | 2140  | 10x20   | 0.013   | 2660 |
| 2200     | 222     | 10x20   | 0.015    | 2530  | 10x23   | 0.012   | 3000 |
| 3300     | 332     | 10x23   | 0.012    | 3110  |         |         |      |
| 3900     | 392     | 10x26   | 0.012    | 3480  |         |         |      |
| 4700     | 472     | 12.5x26 | 0.014    | 3810  |         |         |      |

| V(Code) |      |         | 16 (1C) |      | 25 (1E) |        |      |
|---------|------|---------|---------|------|---------|--------|------|
| μF      | Code | DxL     | E.S.R.  | R.C. | DxL     | E.S.R. | R.C. |
| 470     | 471  | 8x11.5  | 0.036   | 1160 | 10x16   | 0.019  | 2030 |
| 680     | 681  | 8x16    | 0.028   | 1610 |         |        |      |
| 000     | 001  | 10x12.5 | 0.028   | 1640 |         |        |      |
| 1000    | 100  | 8x20    | 0.019   | 2160 |         |        |      |
|         | 102  | 10x16   | 0.019   | 2210 |         |        |      |
| 1500    | 152  | 10x20   | 0.013   | 2830 |         |        |      |
| 1800    | 182  | 10x23   | 0.012   | 3300 |         |        |      |