



**THT, Radial E-Cap., Standard Serie for general purposes, High CV value, Long Lead, ROHS Conform, Packing Bulk-Ware into Polybag/Box**

| Items                                                                   |                 | Performance Characteristics                                                                       |      |      |      |      |        |                                   |                                      |         |         |         |
|-------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------|------|------|------|------|--------|-----------------------------------|--------------------------------------|---------|---------|---------|
| Operating temperature range                                             |                 | -40°C +105°C (6,3V~450V; -25°C ~+105°C (500V                                                      |      |      |      |      |        |                                   |                                      |         |         |         |
| Leakage current max.                                                    |                 | WV≤100                                                                                            |      |      |      |      |        |                                   | WV≥100                               |         |         |         |
|                                                                         |                 | I = 0,01CV or 3µA whichever is greater (after 2 minutes                                           |      |      |      |      |        |                                   | I = 0,02CV + 15µA ( after 5 minutes) |         |         |         |
|                                                                         |                 | I = 0,03CV or 4µA whichever is greater (after 1 minutes                                           |      |      |      |      |        |                                   |                                      |         |         |         |
| Capacitance tolerance                                                   |                 | ±20% at 120Hz, 20°C                                                                               |      |      |      |      |        |                                   |                                      |         |         |         |
| Dissipation factor max.<br>(at 120Hz, 20°C)                             |                 | Capacitance > 1000µF ; tanQ increases by 0,02 for each 1000µF from below value.                   |      |      |      |      |        |                                   |                                      |         |         |         |
|                                                                         |                 | WV                                                                                                | 6,3  | 10   | 16   | 25   | 35     | 50                                | 63                                   | 100     | 160~250 | 350~500 |
|                                                                         |                 | TanQ                                                                                              | 0,28 | 0,24 | 0,20 | 0,16 | 0,14   | 0,12                              | 0,10                                 | 0,08    | 0,15    | 0,20    |
| Low temperature characteristics (Impedance ratio at 120Jz)              | WV              | 6,3                                                                                               | 10   | 16   | 25   | 35   | 50~100 | 160                               | 200~350                              | 400~450 | 500     |         |
|                                                                         | Z-25°C / Z+20°C | 5                                                                                                 | 4    | 3    | 2    | 2    | 2      | 4                                 | 6                                    | 10      | 12      |         |
|                                                                         | Z-40°C / Z+20°C | 12                                                                                                | 10   | 8    | 5    | 4    | 3      | 6                                 | 8                                    | 12      | -       |         |
| Load life ( after application of the rated voltage for 2000hrs at 85°C) |                 | Leakage Current                                                                                   |      |      |      |      |        | Less than specified Value         |                                      |         |         |         |
|                                                                         |                 | Capacitance Change                                                                                |      |      |      |      |        | Within ±20% of initial value      |                                      |         |         |         |
|                                                                         |                 | TanQ                                                                                              |      |      |      |      |        | Less than 200% of specified value |                                      |         |         |         |
| Shelf life (at 85°C)                                                    |                 | After 1000 hours no load test, leakage current, capacitance and tanQ are same as load life value. |      |      |      |      |        |                                   |                                      |         |         |         |

**FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT**

| WV      | µF/Frequency | 60Hz | 120Hz | 1kHz | 10kHz | 50kHz | 100kHz≤ |
|---------|--------------|------|-------|------|-------|-------|---------|
| 6,3~100 | ~47          | 0,75 | 1,00  | 1,55 | 2,00  | 2,00  | 2,00    |
|         | 68~680       | 0,80 | 1,00  | 1,35 | 1,50  | 1,62  | 1,75    |
|         | 820~         | 0,85 | 1,00  | 1,15 | 1,15  | 1,32  | 1,50    |
| 160~500 | ~220         | 0,80 | 1,00  | 1,40 | 1,60  | 1,70  | 1,80    |
|         | 330~         | 0,90 | 1,00  | 1,13 | 1,15  | 1,32  | 1,50    |

**Technical Details**

|                                   |                |        |      |
|-----------------------------------|----------------|--------|------|
| Range (µF)                        | 68             | ØD(mm) | 12,5 |
| Voltage (V)                       | 160            | L(mm)  | 20,0 |
| Impedance (Ω)                     | -.-            | F(mm)  | 5,0  |
| Ripple Current (mA)               | 293            | Ød(mm) | 0,6  |
| ESR (Ω) max.at 20°C 10KHz         | -.-            | α(mm)  | 2    |
| Lifetime (hrs)                    | 2000           | -.-    | -.-  |
| Operating- Temperature Range (°C) | -40°C ~ +105°C | -.-    | -.-  |



|       |       |      |        |        |        |       |            |
|-------|-------|------|--------|--------|--------|-------|------------|
| DRW:  | Lexua | CHKD | Wilson | MATL:  | ChuChu | DATE  | 09.12.2024 |
| APPD: | Jimmy |      |        | FINISH | Josy   | Sheet | 1 from 2   |



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### Ordering Informations:

| Serie-No. / Voltage / Range / Size | Capacity Tolerance | ROHS | Packing |
|------------------------------------|--------------------|------|---------|
|------------------------------------|--------------------|------|---------|

|                   |   |   |    |
|-------------------|---|---|----|
| I14009-1616801320 | M | R | BU |
|-------------------|---|---|----|

| Serie | Voltage (V) | Range $\mu$ H) | D * L (mm) | Tolerance Order Code | R= ROHS<br>N= NON ROHS | BU= Bulk-Ware Long Lead<br>T/B= Tape/Box<br>L3= Lead-Length 3~3,5mm |
|-------|-------------|----------------|------------|----------------------|------------------------|---------------------------------------------------------------------|
|-------|-------------|----------------|------------|----------------------|------------------------|---------------------------------------------------------------------|

### Soldering Information

#### Lead Solder Performance



#### Lead free Solder Performance



|       |       |      |        |        |        |       |            |
|-------|-------|------|--------|--------|--------|-------|------------|
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