



**THT, Radial E-Cap., High Temperature for 125°C use, Load life 2000 hours load life at 125°C, for electronic control unit and other high temperature applications, Long Lead, ROHS Conform, Packing Bulk-Ware into Polybag**

| Items                                                                    |                 |  | Performance Characteristics                                                                       |         |      |      |      |      |        |                                      |  |        |         |  |  |
|--------------------------------------------------------------------------|-----------------|--|---------------------------------------------------------------------------------------------------|---------|------|------|------|------|--------|--------------------------------------|--|--------|---------|--|--|
| Operating temperature range                                              |                 |  | -40°C +125°C                                                                                      |         |      |      |      |      |        |                                      |  |        |         |  |  |
| Leakage current max.                                                     |                 |  | WV≤50                                                                                             |         |      |      |      |      |        | WV≥63                                |  |        |         |  |  |
|                                                                          |                 |  | I = 0,01CV + 3μA whichever is greater (after 2 minutes)                                           |         |      |      |      |      |        | I = 0,03CV + 10μA ( after 5 minutes) |  |        |         |  |  |
|                                                                          |                 |  |                                                                                                   |         |      |      |      |      |        |                                      |  |        |         |  |  |
| Capacitance tolerance                                                    |                 |  | ±20% at 120Hz, 20°C                                                                               |         |      |      |      |      |        |                                      |  |        |         |  |  |
| Dissipation factor max.<br>(at 120Hz, 20°C)                              |                 |  |                                                                                                   |         |      |      |      |      |        |                                      |  |        |         |  |  |
|                                                                          |                 |  | WV                                                                                                |         | 6,3  | 10   | 16   | 25   | 35     | 50                                   |  | 63~100 | 160~500 |  |  |
|                                                                          |                 |  | TanQ                                                                                              |         | 0,22 | 0,19 | 0,16 | 0,14 | 0,12   | 0,10                                 |  | 0,08   | 0,15    |  |  |
| Low temperature characteristics (Impedance ratio at 120Jz)               | WV              |  |                                                                                                   | 6,3~ 10 |      |      |      |      | 16~250 |                                      |  |        |         |  |  |
|                                                                          | Z-25°C / Z+20°C |  |                                                                                                   | 3       |      |      |      |      | 2      |                                      |  |        |         |  |  |
|                                                                          | Z-40°C / Z+20°C |  |                                                                                                   | 5       |      |      |      |      | 4      |                                      |  |        |         |  |  |
| Load life ( after application of the rated voltage for 2000hrs at 125°C) |                 |  | Leckage Current                                                                                   |         |      |      |      |      |        | Less than specified Value            |  |        |         |  |  |
|                                                                          |                 |  | Capacitance Change                                                                                |         |      |      |      |      |        | Within ±20% off initial Value        |  |        |         |  |  |
|                                                                          |                 |  | TanQ                                                                                              |         |      |      |      |      |        | Less than 300% of specified value    |  |        |         |  |  |
|                                                                          |                 |  |                                                                                                   |         |      |      |      |      |        |                                      |  |        |         |  |  |
|                                                                          |                 |  | Ø5, Ø6,3 and WV≥ 100V = 1000hours                                                                 |         |      |      |      |      |        |                                      |  |        |         |  |  |
| Shelf life (at 125°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        | Frequency  | 60HZ | 120Hz | 1kHz | 10kHz | 50kHz | 100kHz≤ |
|-----------|------------|------|-------|------|-------|-------|---------|
| 6,3 ~ 100 | ~ 47       | 0,39 | 0,50  | 0,78 | 1,00  | 1,00  | 1,00    |
|           | 68 ~ 680   | 0,46 | 0,57  | 0,77 | 0,86  | 0,93  | 1,00    |
|           | 1000 ~     | 0,57 | 0,67  | 0,77 | 0,77  | 0,88  | 1,00    |
| 160 ~ 250 | 0,47 ~ 220 | 0,44 | 0,56  | 0,78 | 0,89  | 0,94  | 1,00    |
|           | 330 ~      | 0,60 | 0,67  | 0,75 | 0,77  | 0,88  | 1,00    |

#### Technical Details

|                                   |                |        |      |
|-----------------------------------|----------------|--------|------|
| Range (µF)                        | 47             | ØD(mm) | 8,0  |
| Voltage                           | 50             | L(mm)  | 11,5 |
| Impedance (Ω)                     | -.-            | F(mm)  | 3,5  |
| Ripple Current (mA)               | 365            | Ød(mm) | 0,5  |
| ESR (Ω) max.at 20°C 10KHz         | -.-            | α(mm)  | 1,5  |
| Lifetime (hrs)                    | 2000           | -.-    | -.-  |
| Operating- Temperature Range (°C) | -40°C ~ +125°C | -.-    | -.-  |



|    |     |     |     |     |      |     |     |
|----|-----|-----|-----|-----|------|-----|-----|
| ØD | 5   | 6,3 | 8   | 10  | 12,5 | 16  | 18  |
| F  | 2,0 | 2,5 | 3,5 | 5,0 | 5,0  | 7,5 | 7,5 |
| Ød | 0,5 |     |     | 0,6 |      | 0,8 |     |
| α  | 1,5 |     |     | 2,0 |      |     |     |

|       |       |      |        |        |        |       |            |
|-------|-------|------|--------|--------|--------|-------|------------|
| DRW:  | Lexua | CHKD | Wilson | MATL:  | ChuChu | DATE  | 23.12.2024 |
| APPD: | Jimmy |      |        | FINISH | Josy   | Sheet | 1 from 2   |

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### Ordering Informations:

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

|                   |   |   |    |
|-------------------|---|---|----|
| I14069-5004700812 | M | R | BU |
|-------------------|---|---|----|

| Serie | Voltage (V) | Range µH) | 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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