



**THT, Radial E-Cap., Extremely low Impedance at high Frequency High Reliability, Long Lead, ROHS Conform, Packing Bulk-Ware into Polybag**

| Items                                                                    |                 |                                                                                                   | Performance Characteristics |      |      |      |      |                                   |                                      |         |         |         |
|--------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------|-----------------------------|------|------|------|------|-----------------------------------|--------------------------------------|---------|---------|---------|
| Operating temperature range                                              |                 | -40°C +105°C (6,3V~100V / -40°C ~+105°C (160V-250V ; -25~ +105°C ( 350~500V)                      |                             |      |      |      |      |                                   |                                      |         |         |         |
| 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) |         |         |         |
|                                                                          |                 |                                                                                                   |                             |      |      |      |      |                                   |                                      |         |         |         |
| 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                                                                                              | 0,22                        | 0,19 | 0,16 | 0,14 | 0,12 | 0,10                              | 0,09                                 | 0,08    | 0,15    | 0,20    |
| Low temperature characteristics (Impedance ratio at 120Jz)               | WV              | 6,3                                                                                               | 10                          | 16   | 25   | 35   | 50   | 160                               | 160~250                              | 350~500 |         |         |
|                                                                          | Z-25°C / Z+20°C | 4                                                                                                 | 3                           | 2    | 2    | 2    | 2    | 3                                 | 3                                    | 8       |         |         |
|                                                                          | Z-40°C / Z+20°C | 8                                                                                                 | 6                           | 4    | 3    | 3    | 3    | 4                                 | 4                                    | -       |         |         |
| Load life ( after application of the rated voltage for 2000hrs at 105°C) |                 | Leakage Current                                                                                   |                             |      |      |      |      | Less than specified Value         |                                      |         |         |         |
|                                                                          |                 | Capacitance Change                                                                                |                             |      |      |      |      | Within ±20% of initial value      |                                      |         |         |         |
|                                                                          |                 | TanQ                                                                                              |                             |      |      |      |      | Less than 200% of specified value |                                      |         |         |         |
| Shelf life (at 105°C)                                                    |                 | After 1000 hours no load test, leakage current, capacitance and tanQ are same as load life value. |                             |      |      |      |      |                                   |                                      |         |         |         |

**FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT**

|  | μF/Frequency | 120Hz | 1kHz | 10kHz | 100kHz≤ |
|--|--------------|-------|------|-------|---------|
|  | ~33          | 0,40  | 0,65 | 0,82  | 1,00    |
|  | 47~220       | 0,50  | 0,70 | 0,84  | 1,00    |
|  | 330~680      | 0,55  | 0,75 | 0,86  | 1,00    |
|  | 820~1500     | 0,60  | 0,80 | 0,88  | 1,00    |
|  | 2200~15000   | 0,70  | 0,85 | 0,90  | 1,00    |

**Technical Details**

|                                   |                  |        |      |
|-----------------------------------|------------------|--------|------|
| Range (μF)                        | 4,7              | ØD(mm) | 12,5 |
| Voltage                           | 450              | L(mm)  | 20,0 |
| Impedance (Ω)                     | 3,6              | F(mm)  | 5,0  |
| Ripple Current (mA)               | 200              | Ød(mm) | 0,6  |
| ESR (Ω) max.at 20°C 10KHz         | ~.               | α(mm)  | 2    |
| Lifetime (hrs)                    | 2000             | ~.     | ~.   |
| Operating- Temperature Range (°C) | ..-25°C ~ +105°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  | 28.01.2025 |
| APPD: | Jimmy |      |        | FINISH | Josy   | Sheet | 1 from 2   |



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### Ordering Informations:

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

|                   |   |   |    |
|-------------------|---|---|----|
| I14111-4514R71320 | M | R | BU |
|-------------------|---|---|----|

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

### Soldering Information

#### Lead Solder Performance



#### Lead free Solder Performance



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