

TS13E CD137



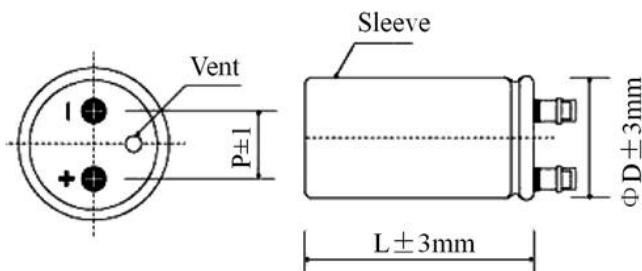
FEATURES

- Development specially for the demand of higher voltage with compact size.
- 500V and 550V added in the series.
- Warranty of 5000 hours at 85°C

◆ Specifications

| I T E M S | | S P E C I F I C A T I O N S | |
|--|--|--|--|
| Rated Voltage Range(V) | 400, 450, 500V, 550V | | |
| Operating Temperature Range(°C) | -40°C ~ +85°C | | |
| Capacitance Tolerance(20°C, 120Hz) | ±20% | | |
| Dissipation Factor(20°C, 120Hz) | 400, 450V.DC : 0.15 500, 550V.DC : 0.20 | | |
| Leakage current(µA) | 0.01CV or 5mA, whichever is smaller. (at 20°C, after 5 minutes) C:Nominal capacitance (µF) V:Rated voltage(V) | | |
| Load Life (+85°C) | Time | 5000 hours | |
| | Leakage Current | Not more than the specified value. | |
| | Capacitance Change | Within ±15% of the initial value | |
| | Dissipation Factor | Not more than 175% of the specified value. | |
| Shelf Life (+85°C) | Time | 1000 hours | |
| | Leakage Current | Not more than the specified value. | |
| | Capacitance Change | Within ±15% of the initial value | |
| | Dissipation Factor | Not more than 175% of the specified value. | |
| After Test: U _R to be applied for 30 minutes, 12 to 24 hours before measurement | | | |

◆ Dimensions



| | | | | | |
|----|----|------|----|----|------|
| ΦD | 51 | 64 | 77 | 90 | 101 |
| P | 22 | 28.6 | 32 | 32 | 41.5 |

◆ Multiplier for ripple current

Frequency coefficient

| | | | | | |
|---------------|-------|-----|-----|-----|------|
| Frequency(Hz) | 50,60 | 120 | 300 | 1K | ≥10K |
| Factor | 0.7 | 1.0 | 1.1 | 1.3 | 1.40 |

Temperature coefficient

| | | | |
|-----------------|------|------|------|
| Temperature(°C) | +40 | +60 | +85 |
| Factor | 1.89 | 1.67 | 1.00 |

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■STANDARD RATINGS

| Rated Voltage (V.DC) | Surge Voltage (V.DC) | Rated Capacitance (μ F) | Leakage Current Max (mA) | Dissipation Factor Max | Ripple Current 85°C 120Hz (Arms) | Outline Size | |
|-------------------------|-------------------------|---------------------------------|-----------------------------|---------------------------|-------------------------------------|--------------|----------|
| | | | | | | Code | DxL (mm) |
| 400 | 450 | 2200 | 5.0 | 0.15 | 8.8 | C12R | 561x115 |
| | | 2700 | 5.0 | 0.15 | 10.2 | C13R | 51x130 |
| | | 3300 | 5.0 | 0.15 | 11.0 | D10R | 64x96 |
| | | 3900 | 5.0 | 0.15 | 12.8 | D12R | 64x115 |
| | | 4700 | 5.0 | 0.15 | 14.8 | D13R | 64x130 |
| | | 5600 | 5.0 | 0.15 | 16.2 | E12R | 77x115 |
| | | 6800 | 5.0 | 0.15 | 18.7 | E13R | 77x130 |
| | | 8200 | 5.0 | 0.15 | 22.0 | E16R | 77x155 |
| | | 10000 | 5.0 | 0.15 | 26.7 | E20R | 77x195 |
| | | | 5.0 | 0.15 | 24.2 | F13R | 90x131 |
| | | 12000 | 5.0 | 0.15 | 28.5 | F16R | 90x157 |
| | | 15000 | 5.0 | 0.15 | 34.8 | F20R | 90x196 |
| | | 18000 | 5.0 | 0.15 | 41.2 | F24R | 90x236 |
| 22000 | 5.0 | 0.15 | 47.0 | G24R | 101x237 | | |
| 450 | 500 | 1800 | 5.0 | 0.15 | 7.6 | C12R | 51x115 |
| | | 2200 | 5.0 | 0.15 | 8.8 | C13R | 51x130 |
| | | 2700 | 5.0 | 0.15 | 9.5 | D10R | 64x96 |
| | | 3300 | 5.0 | 0.15 | 11.2 | D12R | 64x115 |
| | | 3900 | 5.0 | 0.15 | 12.8 | D13R | 64x130 |
| | | 4700 | 5.0 | 0.15 | 14.1 | E12R | 77x115 |
| | | 5600 | 5.0 | 0.15 | 16.2 | E13R | 77x130 |
| | | 6800 | 5.0 | 0.15 | 19.1 | E16R | 77x155 |
| | | 8200 | 5.0 | 0.15 | 23.0 | E20R | 77x195 |
| | | | 5.0 | 0.15 | 21.0 | F13R | 90x131 |
| | | 10000 | 5.0 | 0.15 | 25.7 | F17R | 90x171 |
| | | 12000 | 5.0 | 0.15 | 29.7 | F20R | 90x196 |
| | | | 5.0 | 0.15 | 29.3 | G18R | 101x175 |
| | | 15000 | 5.0 | 0.15 | 35.9 | F24R | 90x236 |
| | | | 5.0 | 0.15 | 34.2 | G20R | 101x195 |
| 18000 | 5.0 | 0.15 | 40.5 | G24R | 101x237 | | |
| 500 | 550 | 1200 | 5.0 | 0.20 | 6.2 | C12R | 51x115 |
| | | | 5.0 | 0.20 | 6.3 | D10R | 64x96 |
| | | 1500 | 5.0 | 0.20 | 7.3 | C13R | 51x130 |
| | | | 5.0 | 0.20 | 7.1 | D10R | 64x96 |
| | | 1800 | 5.0 | 0.20 | 8.3 | D12R | 64x115 |
| | | 2200 | 5.0 | 0.20 | 9.6 | D13R | 64x130 |
| | | 2700 | 5.0 | 0.20 | 10.7 | E12R | 77x115 |
| | | 3300 | 5.0 | 0.20 | 12.4 | E13R | 77x130 |
| | | 3900 | 5.0 | 0.20 | 14.4 | E16R | 77x155 |
| | | 4700 | 5.0 | 0.20 | 16.5 | E17R | 77x171 |
| | | | 5.0 | 0.20 | 15.8 | F13R | 90x131 |
| | | 5600 | 5.0 | 0.20 | 19.0 | E20R | 77x195 |
| | | | 5.0 | 0.20 | 18.6 | F16R | 90x157 |
| | | 6800 | 5.0 | 0.20 | 21.2 | F17R | 90x171 |
| | | 8200 | 5.0 | 0.20 | 24.5 | F20R | 90x196 |
| | | | 5.0 | 0.20 | 24.2 | G18R | 101x175 |
| | | 10000 | 5.0 | 0.20 | 29.3 | F24R | 90x236 |
| | | | 5.0 | 0.20 | 27.9 | G20R | 101x195 |
| 12000 | 5.0 | 0.20 | 33.1 | G24R | 101x237 | | |
| 550 | 600 | 1000 | 5.0 | 0.20 | 5.9 | C13R | 51x130 |
| | | 1200 | 5.0 | 0.20 | 6.8 | D12R | 64x115 |
| | | 1500 | 5.0 | 0.20 | 8.0 | D13R | 64x130 |
| | | 1800 | 5.0 | 0.20 | 8.7 | E12R | 77x115 |
| | | 2200 | 5.0 | 0.20 | 10.1 | E13R | 77x130 |
| | | 2700 | 5.0 | 0.20 | 12.0 | E16R | 77x155 |
| | | 3300 | 5.0 | 0.20 | 13.3 | E16R | 77x155 |
| | | 3900 | 5.0 | 0.20 | 15.5 | F16R | 90x157 |
| | | 4700 | 5.0 | 0.20 | 17.6 | F17R | 90x171 |
| | | 5600 | 5.0 | 0.20 | 20.3 | F20R | 90x196 |
| | | 6800 | 5.0 | 0.20 | 24.1 | F24R | 90x236 |
| | | 8200 | 5.0 | 0.20 | 27.3 | G24R | 101x237 |

Note: Specifications are subject to change without notice. For more detail and update, please visit our website.