# T528 Series - Polymer FaceDown, Low ESR, Low ESL

## Product Specification

### Features

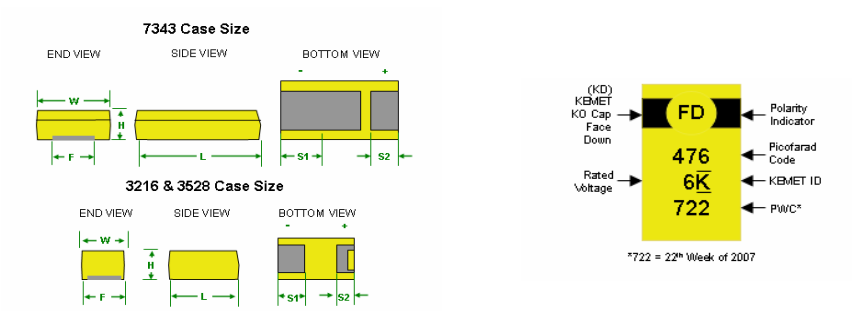
- ESR as low as 8mOhms
- Capacitance values to 470uF
- High Frequency Cap Retention
- Low ESL <0.7nH @ 20 MHz
- Voltage Ratings from 2.5V to 10V
- High Ripple Current Capability
- Long Life 105° C/2000 Hrs
- Stable temperature characteristics
- Pb Free/RoHS Compliant & Halogen Free
- Safe failure mode

### Specifications

| Item | Performance Characteristics | | | | | |
|---|---|---|---|---|---|---|
| Operating Temperature | -55° C to 105° C | | | | | |
| Rated Capacitance Range | 33 to 470uF @ 120 Hz/25° C | | | | | |
| Capacitance Tolerance | M Tolerance (20%) | | | | | |
| Rated Voltage Range | 2.5 to 10V | | | | | |
| Dissipation Factor (DF) | ≤ 10% | | | | | |
| ESR (100KHz) | Refer to Part Number Electrical Specification Table | | | | | |
| Leakage Current | ≤ 0.1CV (μA) at Rated Voltage after 5 minutes | | | | | |
| Endurance | 105° C @ Rated Voltage, 2000 Hrs. | | ΔC/C | Within -20/+10 of initial value | | |
| | | | DF | ≤ Initial Limit | | |
| | | | DCL | Within 1.25 x initial limit | | |
| | | | ESR | Within 2.0 x initial limit | | |
| Humidity | 60° C, 90% RH, 500Hr | | ΔC/C | Within -5%/+35% of initial value | | |
| | | | DF | ≤ Initial Limit | | |
| | | | DCL | Within 5.0 x initial limit | | |
| | | | ESR | Within 2.0 x initial limit | | |
| Temperature Stability | Extreme temperature exposure at a succession of continuous steps at +25 C, -55 C, +25 C, +85 C, +105 C, +25 C. | | | +25°C | -55°C | +85°C | +105°C |
| | | ΔC/C | IL* | +/-20% | +/-20% | +/-30% |
| | | DF | IL | IL | 1.2 x IL | 1.5 x IL |
| | | DCL | IL | n/a | 10 x IL | 10 x IL |
| Surge Voltage | 105°C, 1.32 x rated voltage 1000 cycles | | ΔC/C | Within -20/+10 of initial value | | |
| | | | DF | Within initial limits | | |
| | | | DCL | Within initial limits | | |
| | | | ESR | Within initial limits | | |

* IL = Initial Limit

### Marking and Dimensions




| Case Codes | | Component Dimensions (mm) | | | | | |
|---|---|---|---|---|---|---|---|
| KEMET | EIA | L | W | H | F ± 0.2 | S1 ± 0.2 | S2 ± 0.2 |
| I | 3216-10 | 3.2±0.2 | 1.6±0.2 | 1.0 max | 1.2 | 1 | 0.7 |
| M | 3528-15 | 3.5±0.2 | 2.8±0.2 | 1.5 max | 2.0 | 1.2 | 0.6 |
| K | 3528-10 | 3.5±0.2 | 2.8±0.2 | 1.0 max | 2.0 | 1.2 | 0.6 |
| T | 3528-12 | 3.5±0.2 | 2.8±0.2 | 1.2 max | 2.0 | 1.2 | 0.6 |
| Z | 7343-17 | 7.3±0.4 | 4.3±0.3 | 1.7 max | 2.8 | 5.1 | 1.3 |

### Part Number Specification

| KEMET Part Number | Case | Cap (μF) | Voltage | DCL VR (μA) | DF 120Hz (%) | ESR 100KHz (mΩ) | Ripple Current (Arms) 100KHz | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | ΔT=20°C @ -55°C to 85°C | ΔT=2°C @105°C |
| T528K157M006ATE150 | K/3528-10 | 150 | 6.3 | 94.5 | 10 | 150 | 1.0 | 0.3 |
| T528K157M006ATE200 | K/3528-10 | 150 | 6.3 | 94.5 | 10 | 200 | 0.9 | 0.3 |