

# KWK RESISTORS INDIA



## THICK FILM RESISTORS TO-220 PACKAGE - KTR35 - 35W

### Features:

- Operating power up to 35W.
- Simplified attachment to heatsink with a single screw.
- Non-Inductive construction.
- RoHS Compliant.
- UL 94 V-0 compliant material.
- Provides superior environmental protection due to fully molded construction.
- High electrical insulation from heat sink.
- High pulse tolerant design.



### PERFORMANCE CHARACTERISTICS

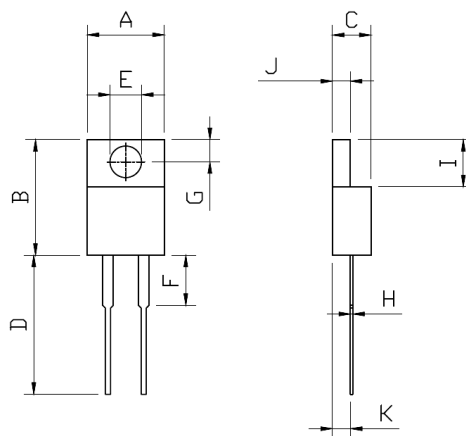
| Characteristics                  | Specification                                                                                          | Condition                                                                           |
|----------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Power Rating                     | 35W                                                                                                    | Bottom Case temperature to be maintained 25°C                                       |
| Derating                         | 100% up to 25°C<br>80% up to 50°C<br>0% at 175°C Bottom case temp.                                     |                                                                                     |
| Resistance Range                 | R05 to 1M                                                                                              |                                                                                     |
| Tolerance                        | ±1 % to ±10 %                                                                                          | Lower tolerances (±0.5 % ) will be on special request for limited resistance values |
| Temperature Co-efficient         | ±100 ppm/°C Standard<br>±50 ppm/°C Standard                                                            | (≥3Ω < 10Ω)<br>(≥10Ω)                                                               |
| Insulation Voltage               | 1800 VAC.                                                                                              |                                                                                     |
| Insulation Resistance            | > 10 GΩ @1000V DC                                                                                      | No Breakdown                                                                        |
| Operating temp                   | -55°C to +175°C                                                                                        |                                                                                     |
| Maximum operating voltage        | 350 V                                                                                                  |                                                                                     |
| Short Time Overload              | 2x rated power with applied voltage not to exceed 1.5x maximum continuous operating voltage for 5 Sec. | $\Delta R \leq \pm(0.3\%R + 0.001\Omega)$ max                                       |
| Moisture Resistance              | -10°C to +65°C, RH>90%, cycle 240 hours                                                                | $\Delta R = (0.5\% + 0.01\Omega)$ max                                               |
| Thermal Shock                    | -65°C to -150°C, 100 cycles                                                                            | $\Delta R = (0.3\% + 0.01\Omega)$ max                                               |
| Endurance                        | Rated power, 2,000 hours                                                                               | $\Delta R \pm (1.0\% + 0.01\Omega)$ max                                             |
| Terminal Strength                | (Pull Test) 2.4N                                                                                       | $\Delta R = (0.2\% + 0.01\Omega)$ max                                               |
| Vibration, high frequency        | 20g peak                                                                                               | $\Delta R = (0.2\% + 0.01\Omega)$ max                                               |
| Lead material                    | Tinned copper                                                                                          |                                                                                     |
| Torque                           | 0.7 Nm to 0.9 Nm                                                                                       |                                                                                     |
| Heat resistance to cooling plate | $R_{th} < 4.28$ K/W                                                                                    |                                                                                     |
| Weight                           | 2g                                                                                                     |                                                                                     |

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### MECHANICAL DIMENSIONS



All dimensions are in mm

| A          | B         | C           | D         | E         | F       | G         | H         | I         | J       | K         |
|------------|-----------|-------------|-----------|-----------|---------|-----------|-----------|-----------|---------|-----------|
| 0.91-10.41 | 14.5-15.0 | 4.06 - 4.82 | 12.7-14.7 | 3.55-3.75 | 3.3-4.0 | 2.85-3.05 | 0.55-0.70 | 5.85-6.35 | 1.2-1.4 | 2.05-2.52 |

### ORDERING DETAILS

KTR35 R T T0220

KTR1 - Series

R - Resistance Value (e.g.: 1R=1Ω; 10R2=10.2Ω; 1K=1kΩ; 1M=1MΩ)

T - Tolerance Code (±1% - F, ±2% -G, ±5% -J, ±10% -K)

Example: KTR35 10R J -35W 10R 5% TO-220 Package

*Disclaimer: Product specifications, data and dimensions are subject to change without any prior notice to improve performance, reliability and design.*

Please feel free to contact us for any assistance required to choose the right solution. We are also able to design Custom Resistive Solutions.

## KWK Resistors India Pvt. Ltd.

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**BUREAU  
VERITAS**

KWKCAT39 R00