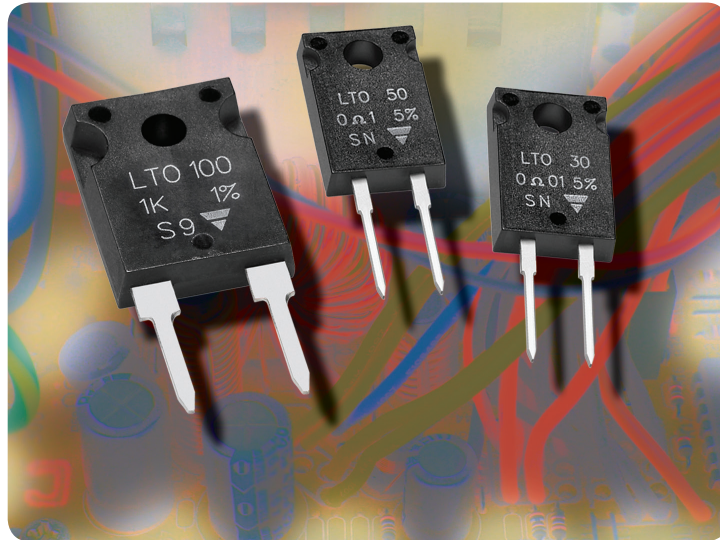




# POWER THICK FILM RESISTORS

## LTO 30, LTO 50, LTO 100

### 30 W, 50 W, and 100 W Thick Film Power Resistors



#### KEY BENEFITS

- Standard TO-220 and TO-247 packages
- Non-inductive
- Compact, low-profile 3.2 mm thickness
- Wide resistance range; low values available from R01 in 1 % tolerance
- Compliant to RoHS directive 2011/65/EU
- Direct mounting of exposed ceramic on heatsink

#### APPLICATIONS

- Power conversion
- High-speed switching
- RF applications
- Current sensing

#### RESOURCES

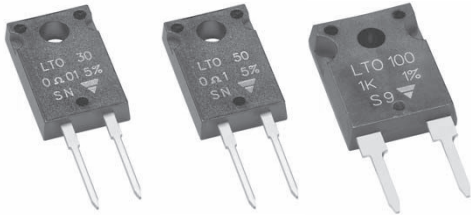
- Datasheet: LTO 30 - <http://www.vishay.com/doc?50049>
- Datasheet: LTO 50 - <http://www.vishay.com/doc?50050>
- Datasheet: LTO 100 - <http://www.vishay.com/doc?50051>
- For technical questions contact [sfer@vishay.com](mailto:sfer@vishay.com)

A **WORLD OF**  
**SOLUTIONS**

# POWER THICK FILM RESISTORS

## LTO 30, LTO 50, LTO 100

### 30 W, 50 W, and 100 W Thick Film Power Resistors



#### FEATURES

- 30 W, 50 W and 100 W at 25 °C case temperature heatsink mounted
- Direct mounting ceramic on heatsink
- Broad resistance range: 0.010 Ω to 550 kΩ (LTO 30, LTO 50), 0.015 Ω to 1 MΩ (LTO 100)
- Non inductive
- TO-220 package (LTO 30, LTO 50), TO-246 (LTO 100): compact and easy to mount
- Compliant to RoHS directive 2002/95/EC

LTO 30		LTO 50		LTO 100	
<b>DIMENSIONS</b> in millimeters					
Note • Tolerances unless stated: ± 0.3 mm					
<b>MECHANICAL SPECIFICATIONS</b> Mechanical Protection Molded Resistive Element Thick film Substrate Alumina Connections Tinned copper Weight 2 g max. Mounting Torque 1 Nm		<b>MECHANICAL SPECIFICATIONS</b> Mechanical Protection Molded Resistive Element Thick film Substrate Alumina Connections Tinned copper Weight 2 g max. Mounting Torque 1 Nm		<b>MECHANICAL SPECIFICATIONS</b> Mechanical Protection Molded Resistive Element Thick film Substrate Alumina Connections Tinned copper Weight 3.5 g max. Mounting Torque 1 Nm	
<b>ELECTRICAL SPECIFICATIONS</b> Resistance Range 0.010 Ω to 550 kΩ Tolerances (Standard) ± 1 % to ± 10 % Dissipation and Associated Onto a heatsink Power Rating and Thermal Resistance of the Component 30 W at + 25 °C (case temp.) $R_{TH(j-c)}$ : 4.2 °C/W Free air: 2.25 W at + 25 °C Temperature Coefficient Standard See Performance table $\pm 150$ ppm/°C Limiting Element Voltage $U_L$ 500 V Dielectric Strength MIL STD 202 1500 $V_{RMS}$ - 1 min 10 mA max. Insulation Resistance $\geq 10^4$ MΩ Inductance $\leq 0.1$ μH Critical Resistance 8.33 kΩ		<b>ELECTRICAL SPECIFICATIONS</b> Resistance Range 0.010 Ω to 550 kΩ Tolerances (Standard) ± 1 % to ± 10 % Dissipation and Associated Onto a heatsink Power Rating and Thermal Resistance of the Component 50 W at + 25 °C (case temp.) $R_{TH(j-c)}$ : 2.5 °C/W Free air: 2.5 W at + 25 °C Temperature Coefficient Standard See Performance table $\pm 150$ ppm/°C Limiting Element Voltage $U_L$ 500 V Dielectric Strength MIL-STD-202 1500 $V_{RMS}$ - 1 min 10 mA max. Insulation Resistance $\geq 10^4$ MΩ Inductance $\leq 0.1$ μH Critical Resistance 5 kΩ		<b>ELECTRICAL SPECIFICATIONS</b> Resistance Range 0.015 Ω to 1 MΩ Tolerances (Standard) ± 1 % to ± 10 % Dissipation and Associated Onto a heatsink Power Rating and Thermal Resistance of the Component 100 W at + 25 °C (case temp.) $R_{TH(j-c)}$ : 1.5 °C/W Free air: 3.5 W at + 25 °C Temperature Coefficient Standard See Performance table $\pm 150$ ppm/°C Limiting Element Voltage $U_L$ 500 V Dielectric Strength MIL STD 202 3000 $V_{RMS}$ - 1 min 10 mA max. Insulation Resistance $\geq 10^4$ MΩ Inductance $\leq 0.1$ μH Critical Resistance 2.5 kΩ	

Revision 21-Jan-11