tyco Electronics

Thick Film Power Resistors

CGS

Type BDS300 Series

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The BDS300 has been designed for use as a snubber resistor where compensatation is required for C-R peaks in traction power supply equipment. The High alumina metallized ceramic is ideally suited to allowing maximum connection to the main heatsink. The resin filled epoxy casing provides large creep distance to mass, large air distance between the terminals and high insulation resistance, whilst the design of the Resitive element element allows for perfect current yeild over the entire component.

Key Features

- Easy connection with M4 or M5 screws
- Connector heights available from 25 to 42mm
- Increased creep distance up to 85mm
- Potted cable connections available on request
- Custom Designs available

Applications

- Snubbing (Low inductance)
- Balancing Resistor (Multi-resistor package)
- Filter (Low inductance)
- High Voltage
- High Frequency

Characteristics - Electrical

Resistance Values:	R505 to 100K
Resistance Tolerance:	±5% or ±10%
Temperature Coefficient:	±150ppm/°C (others upon request)
Power Rating:	300W at 85°C
Capacitance / Mass:	110 pF
Capacitance / Parallel:	40 pF
Inductance:	80 nH
Maximum Working Voltage:	5,000VDC
Insulation Voltage:	6kVrms, 50Hz,1Min.
Single Shot Voltage:	up to 12 kV Normwave (1.5/50µ secs)
Insulation Resistance:	10GΩ Min. at 500V
Partial Discharge:	3kVrms <10pC

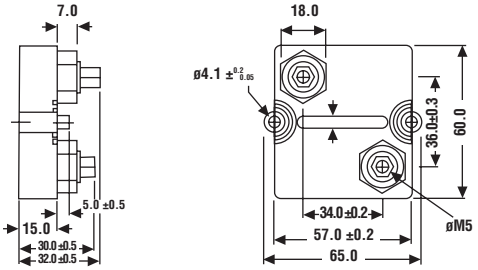
Characteristics - Environmental

Operation Temperature:	-55°C to +150°C
Short Time Overload:	1.5x rated power = 450W at 70°C for 10 sec, ΔR = 0.4% max.

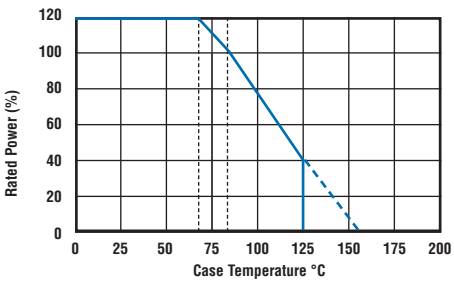
Characteristics - Mechanical

Terminal Size:	M4 or M5 Screws
Max. Torque for Contacts:	2 Nm
Max. Torque for Mounting:	1.8 Nm
Creeping Distance:	42mm Minimum
Air Distance:	14mm Minimum

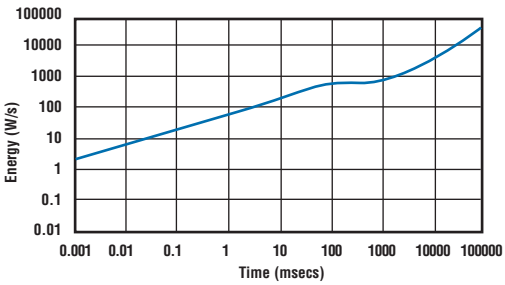
Dimensions



Derating Curve



Pulse Energy



How to Order

BDS 2	A	300	1K0	J
Common Part	**Circuit Type**	**Power Dissipation**	**Resistance Value**	**Tolerance**
BDS 2 (2 Terminal)	A: Standard	300 - 300 Watts	0.5Ω (500mΩ) R50 1Ω (1000mΩ) 1R0 1K (1000Ω) 1K0	J - 5% K - 10%