



POWER SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

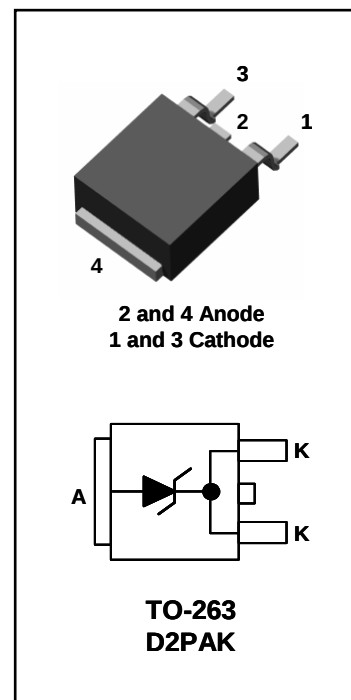
This High Energy Transient Voltage Suppressor comes in an Industry Standard D2PAK package and is intended for Load Dump Protection in Automotive Circuitry, suitable for the PowerNET 42V Systems, and also for any Industrial Applications that requires a Surface Mount Form Factor

SPECIFICATION FEATURES

- 6.6kW Power Dissipation (10x1000μsec Waveform)
- 3 kW Power Dissipation (10x10,000μsec Waveform)
- Very Low Leakage Current, Maximum of 5μA @ 48Vdc
- Low Clamping Voltage

APPLICATIONS

- Load Dump Protection
- PowerNET 42V System Protection
- Automotive Instrumentation
- AC/DC Industrial Systems
- 48V Telecom Power Supplies



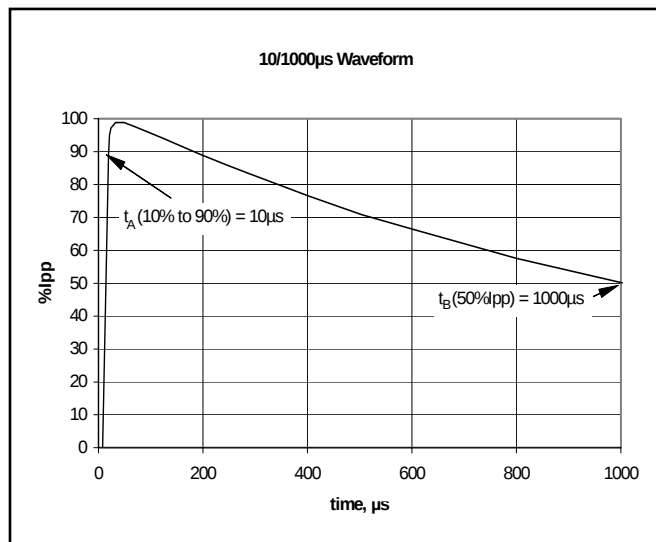
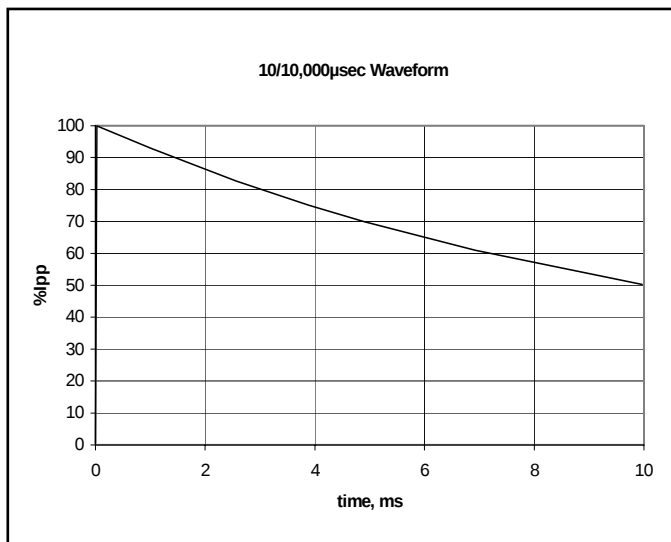
MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Pulse Power (10x1,000μsec Waveform)	P_{pp}	6.6	kW
Peak Pulse Power (10x10,000μsec Waveform)	P_{pp}	3.0	kW
Steady State Power Dissipation	P_D	8	W
Max Peak Pulse Current (10x1000μsec Waveform)	I_{ppm}	85	A
Thermal Resistance junction to ambient	$R_{\theta JA}$	55	°C/W
Thermal Resistance junction to case	$R_{\theta JC}$	1.2	°C/W
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-55 to +150	°C

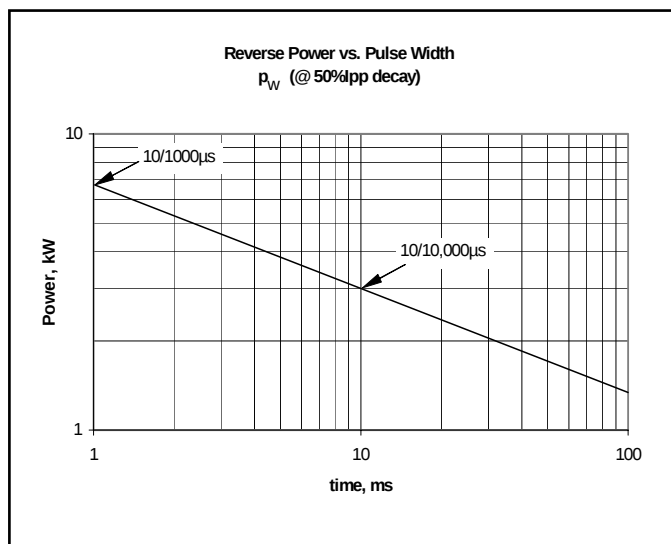
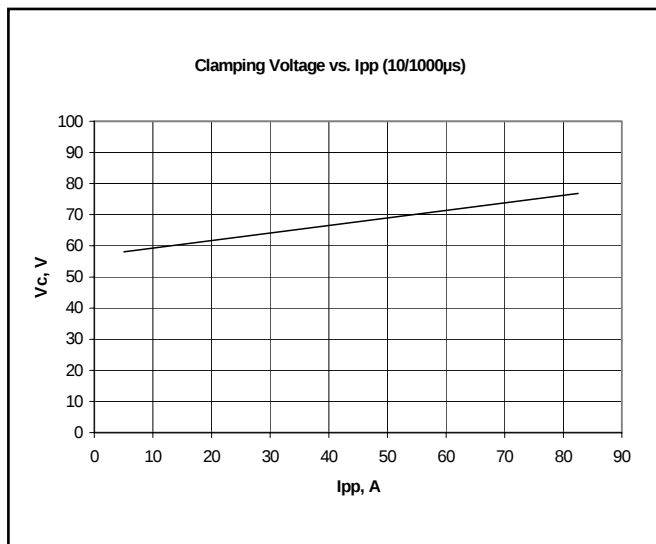
ELECTRICAL CHARACTERISTICS $T_J = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				48	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR} = 5\text{mA}$	53.3		61.3	V
Reverse Leakage Current	I_R	$V_R = 48\text{V}$			5	μA
Clamping Voltage (10x1000μsec)	V_C	$I_{pp} = 82\text{A}$			82	V
On-state forward voltage (Note 1)	V_F	$I_F = 100\text{A}$			2.0	V
Off State Capacitance	C_J	1MHz, 0Vdc Bias			5	nF

Note 1: Pulse Width = 300μs, D.C. ≤ 2.0%

TYPICAL CHARACTERISTICS (T_J = 25°C unless otherwise noted)Surge Current Pulse Waveform 10/1000 μ sLoad Dump Power Characteristics
(10ms Exponential Waveform)

Reverse Power Capability





TO-263 / D2PAK Units: inch (mm)

