

STEERING DIODE/TVS ARRAY COMBO

APPLICATIONS

- ✓ Ethernet - 10/100/1000 Base T
- ✓ FireWire
- ✓ Serial ATA Ports & PCI Express Ports
- ✓ USB Ports
- ✓ DVI Ports & HDMI Ports
- ✓ High-speed Data Line ESD Protection

IEC COMPATIBILITY (EN61000-4)

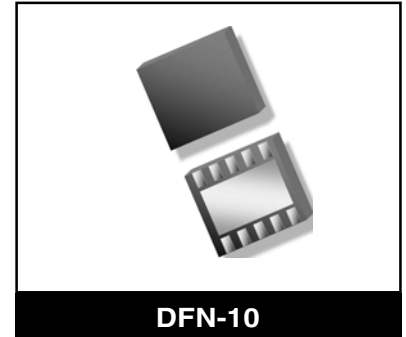
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

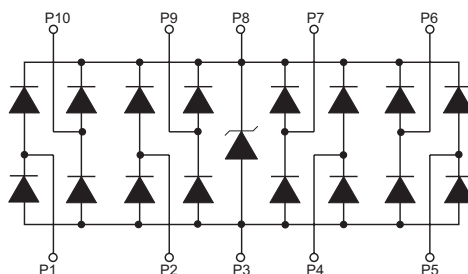
- ✓ 200 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Clamping Voltage
- ✓ Protects Eight (8) Lines
- ✓ Protects 4 I/O Ports & Power Supply
- ✓ Ultra-Low Capacitance: 1.6pF (I/O - I/O)
- ✓ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ✓ DFN-10 Package
- ✓ Weight 7 milligrams (Approximate)
- ✓ Available in Lead-Free Nickel-Paladium-Gold Plating
- ✓ Solder Reflow Temperature:
Nickel-Paladium-Gold (Ni/Pd/Au) - Sn/Ag/Cu, 96/3.5/0.5: 260-270°C
- ✓ Consult Factory for Leaded Device Availability
- ✓ Flammability Rating UL 94V-0
- ✓ Device Marking: Marking Code
- ✓ 8mm Tape and Reel Per EIA Standard 481



PIN CONFIGURATION



DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 8/20µs) - See Figure 1	P_{PP}	200	Watts
Operating Temperature	T_L	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) (See Note 2) @ $I_p = 1A$ V_c VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) (See Note 2) @ $I_p = 5A$ V_c VOLTS	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_b µA	TYPICAL CAPACITANCE (See Note 1) @ 0V, 1 MHz $C_{J(SD)}$ pF
PLR0508	508	5.0	6.0	9.8	13.0	1	1.6

Note 1: From I/O Pin to I/O.

Note 2: Across TVS only (Pin 3 to 8).

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

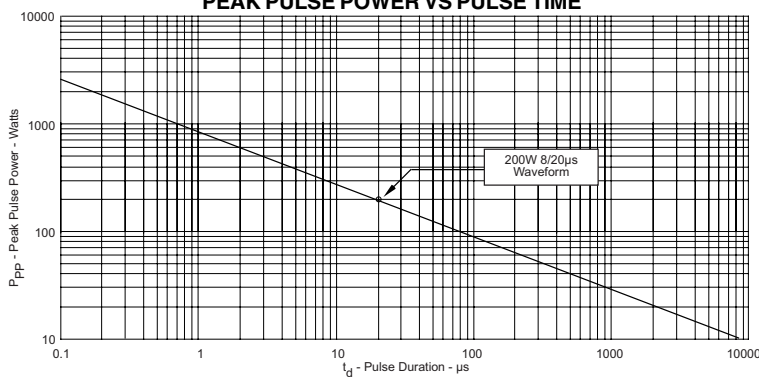
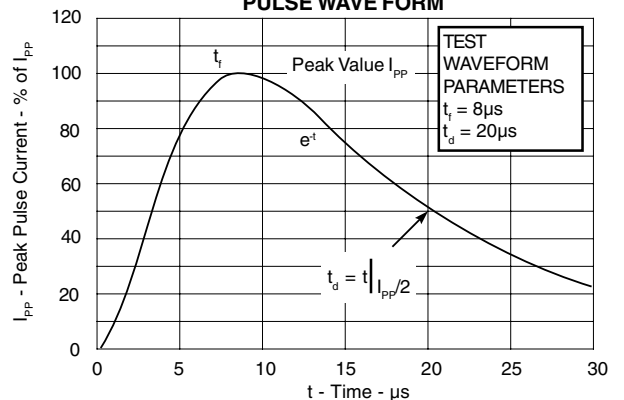
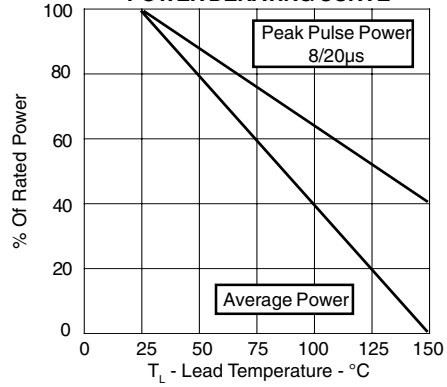


FIGURE 2
PULSE WAVE FORM

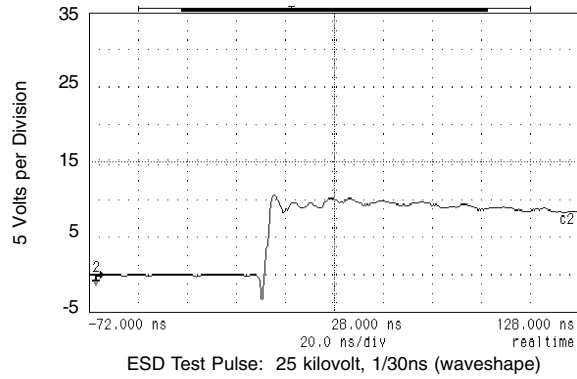


GRAPHS

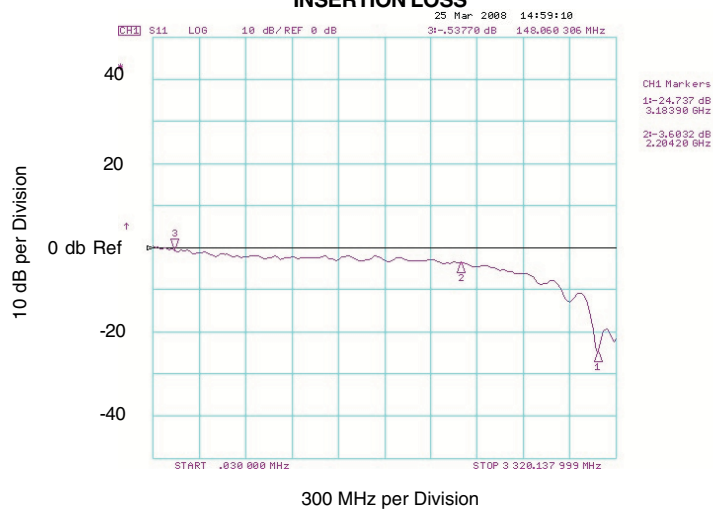
**FIGURE 3
POWER DERATING CURVE**



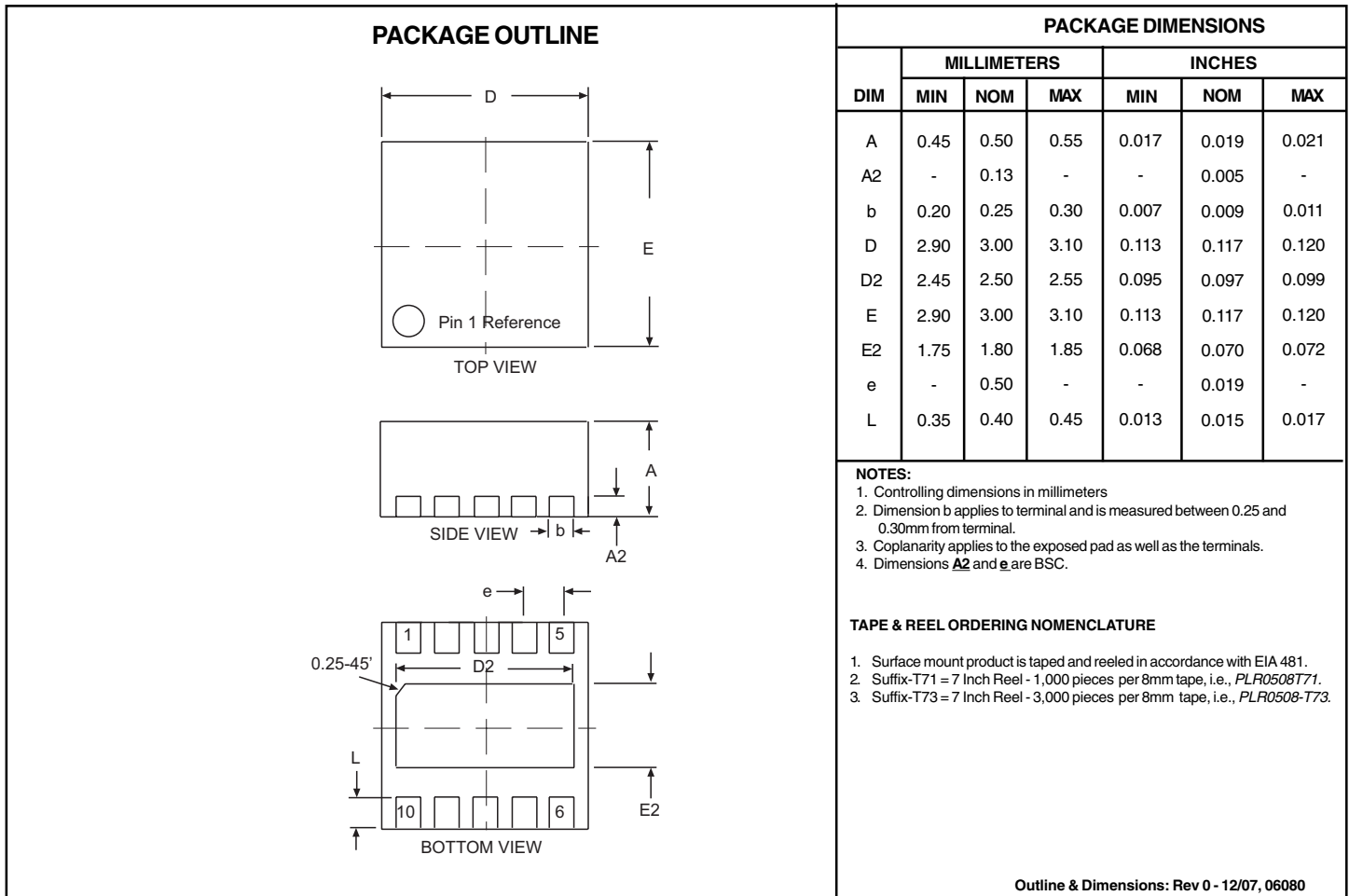
**FIGURE 4
OVERSHOOT & CLAMPING VOLTAGE**



**FIGURE 5
INSERTION LOSS**

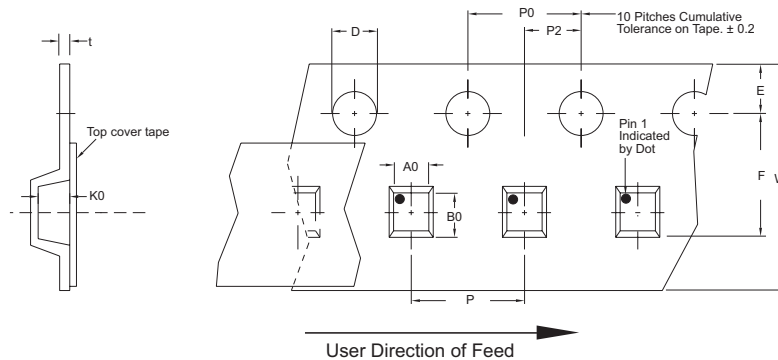


DFN-10 (WIDE BODY) PACKAGE OUTLINE & DIMENSIONS



Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")/330mm(13")	8mm	3.20±0.10	3.20±0.10	0.75 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25



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