

STEERING DIODE / TVS ARRAY COMBO

APPLICATIONS

- ✓ Ethernet - 10/100/1000 Base T
- ✓ Cellular Phones
- ✓ Handheld & Portable Electronics
- ✓ Video/Graphics Card
- ✓ USB 2.0 Interface
- ✓ DVI Interface

IEC COMPATIBILITY (EN61000-4)

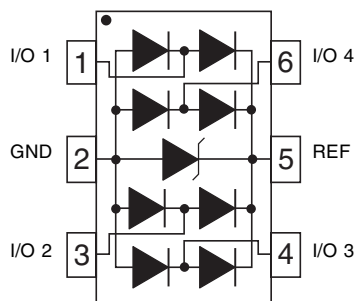
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

- ✓ 200 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Clamping Voltage
- ✓ **PROTECTS FOUR (4) LINES**
- ✓ **ULTRA LOW CAPACITANCE: 1.9pF Typical**
- ✓ RoHS Compliant in Lead Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SC-70-6L Package
- ✓ Weight 7 milligrams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Nickel-Paladium-Gold Plating
- ✓ Solder Reflow Temperature:
 - Tin-Lead - Sn/Pb, 85/15: 240-245°C
 - Nickel-Paladium-Gold (Ni/Pd/Au) Sn/Ag/Cu, 96/3.5/0.5: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Marking Code & Pin One Defined By DOT on Top of Package

**PIN CONFIGURATION**

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1	P_{PP}	200	Watts
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C
Forward Surge Rating (1/20 seconds @ 25°C, $I_F = 10mA$)	V_F	1.5	Volts

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE (See Note 1)	MINIMUM BREAKDOWN VOLTAGE (See Note 1)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) (See Note 1)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) (See Note 1)	MAXIMUM LEAKAGE CURRENT (See Note 1)	TYPICAL CAPACITANCE (See Note 1)
		V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ $I_P = 1A$ V_C VOLTS	@ $I_P = 5A$ V_C VOLTS	@ V_{WM} I_D μA	@ 0V, 1 MHz $C_{j(SD)}$ pF
PLR0504F	A5	5.0	6.0	15.0	25.0	3	1.9

Note 1: From I/O Pin to Ground.

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

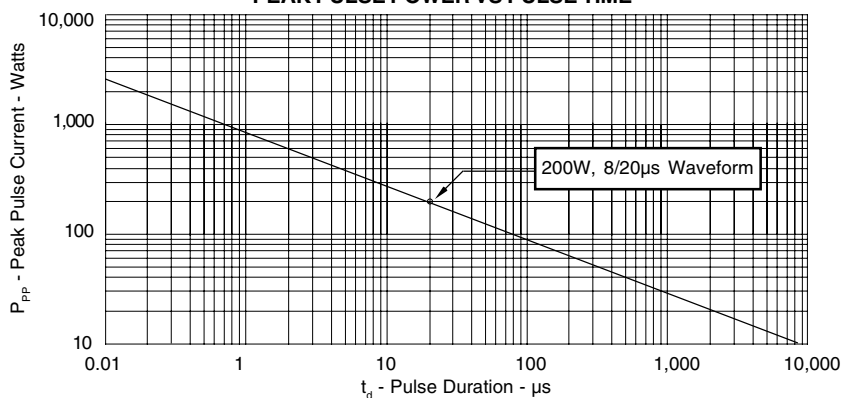
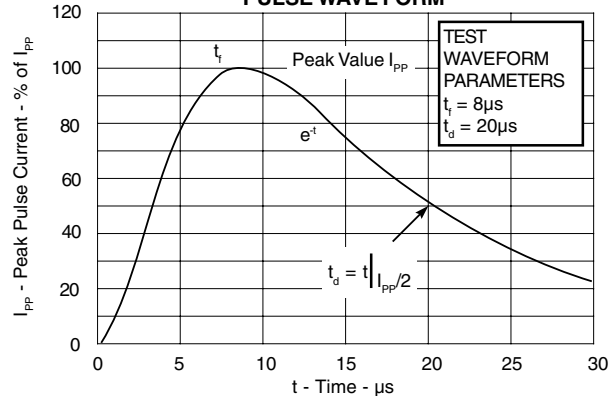
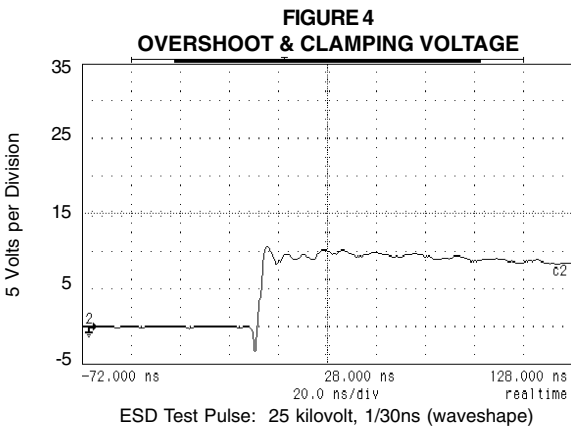
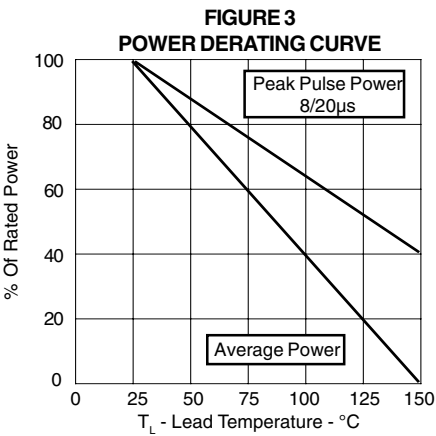


FIGURE 2
PULSE WAVE FORM



GRAPHS



PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

SC70-6L

PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.90	2.15	0.074	0.084
B	1.15	1.35	0.045	0.055
C	0.80	1.00	0.031	0.040
D	0.15	0.30	0.006	0.012
E	0.65 BSC	-	0.0255 BSC	-
F	1.30 BSC	-	0.0512 BSC	-
G	0.80	1.10	0.031	0.043
J	0.08	0.25	0.003	0.010
K	2.00	2.20	0.078	0.086
L	0	0.10	0	0.004
M	0.26	0.46	0.010	0.018

MOUNTING PAD

TYPICAL		
DIM	Millimeters	Inches
1	0.50	0.020
2	1.30	0.051
3	0.65	0.026
4	1.72	0.068
5	0.60	0.024
6	1.11	0.044
7	2.33	0.092

NOTES

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Dimensions are exclusive of mold flash and metal burrs.

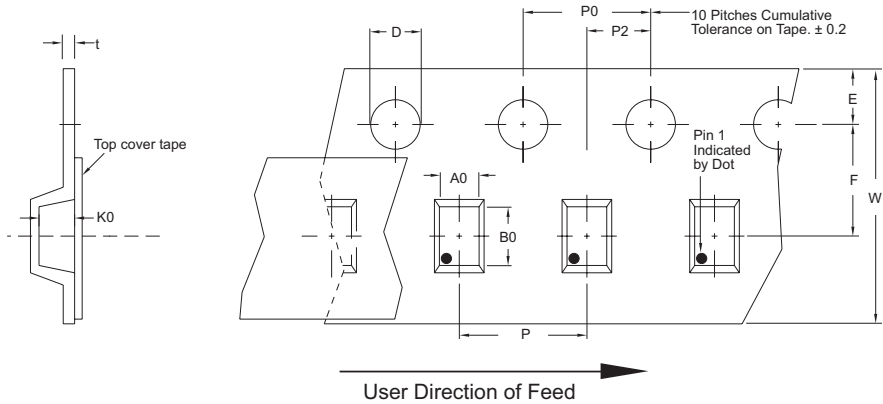
TAPE & REEL ORDERING NOMENCLATURE

1. Surface mount product is taped and reeled in accordance with EIA-481.
2. Suffix-T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., PLR0504F-T7.
3. Suffix-P = Lead-Free Nickel-Palladium-Gold Plating, i.e., PLR0504F-P-T7.

Outline & Dimensions: Rev 3 - 9/05, 06019

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	2.25 ± 0.10	2.34 ± 0.10	1.22 ± 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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