

HIGH SPEED STEERING DIODE ARRAY

APPLICATIONS

- RS-422 & RS-485 Interface Protection
- USB Power & Data Line Protection
- LAN/WAN Interface Protection
- Microcontroller Interface Protection
- 10 Base T Networks

FEATURES

- IEC 1000-4-2, -4 & -5 Industry Requirements
- ESD Protection > 40 kilovolts
- Low Capacitance - 15 pF
- Protects up to Four (4) I/O Ports
- Available in a Standard SO-8 Package
- UL 94V-0 Flammability Classification

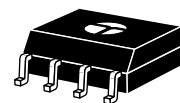
DESCRIPTION

The PSRDA70-4 is a low capacitance steering diode configuration designed for complete isolation. This device can be used to protect data lines from the effects of Electrostatic Discharge (ESD), Electrically Fast Transients (EFT) and induced lightning.

The PSRDA70-4 is offered in a standard SO-8 surface mount package. This device can be used to protect four (4) data or I/O port lines and is suitable for use on high speed interfaces.

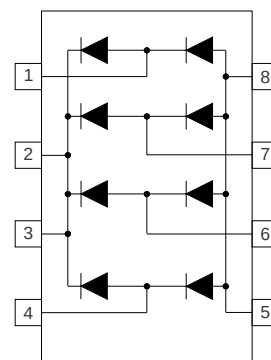
MAXIMUM RATINGS	
Continuous Power Dissipation	500 milliwatts
Operating & Storage Temperature	-55° to +150°C
Forward Surge Current (8/20 μs)	24 Amps
Peak Rectifier V_{RRM}	70 Volts (DC Operating Voltage)
Thermal Resistance $R_{\theta ja}$	170 °C/W
Thermal Resistance $R_{\theta jl}$	60 °C/W
MECHANICAL CHARACTERISTICS	
Package	Molded SO-8 Surface Mount Package
Packaging	Tube or 12mm Tape per EIA 481
Approximate Weight	0.1 grams
Device Markings	Logo & Marking Code
Miscellaneous	Pin No. 1 Indicated by Dot on Top of Package

IEC 1000-4 COMPATIBLE

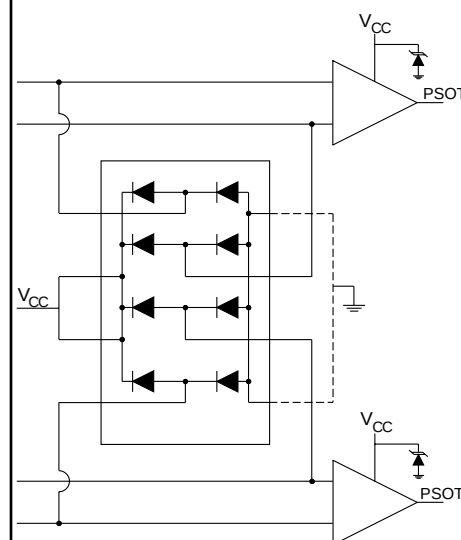


SO-8 PACKAGE

CIRCUIT DIAGRAM



HIGH SPEED DATA LINE APPLICATION



ELECTRICAL CHARACTERISTICS @ 25° C Ambient Temperature

PROTEK TYPE NUMBER	DEVICE MARKING CODE	REPETITIVE PEAK REVERSE VOLTAGE V_{RRM} VOLTS	MAXIMUM FORWARD VOLTAGE @ $I_F = 100\text{ mA}$ V_F VOLTS	MAXIMUM PEAK PULSE CURRENT (See Fig. 2) @ 8/20 μs I_{FM} AMPS	MAXIMUM LEAKAGE CURRENT @ V_{RRM} I_R μA	MAXIMUM CAPACITANCE (See Note 1) C pF
PSRDA70-4	PRG	70	1.1	24	5	15

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

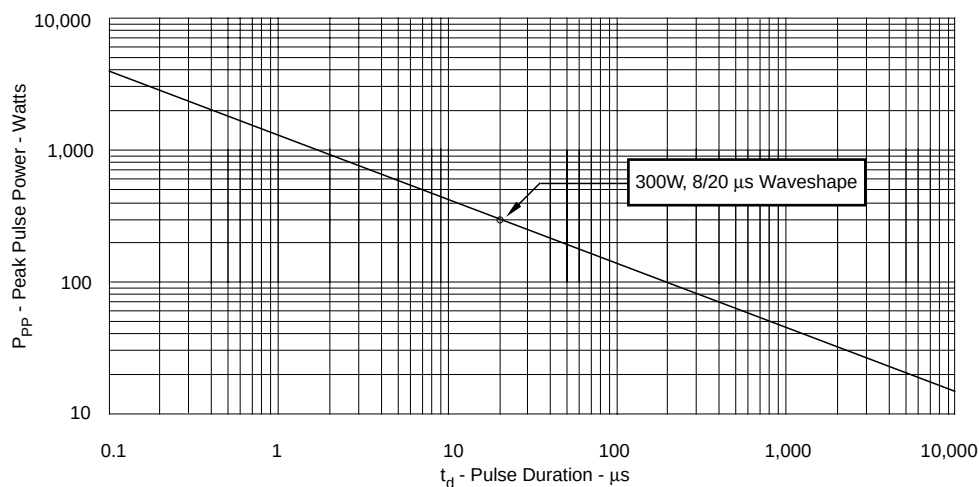


FIGURE 2
PULSE WAVE FORM

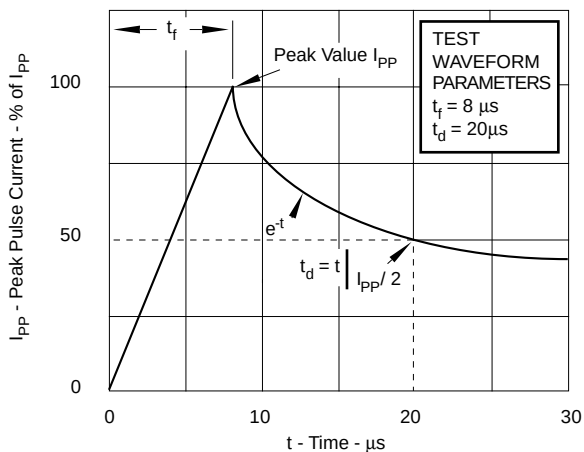
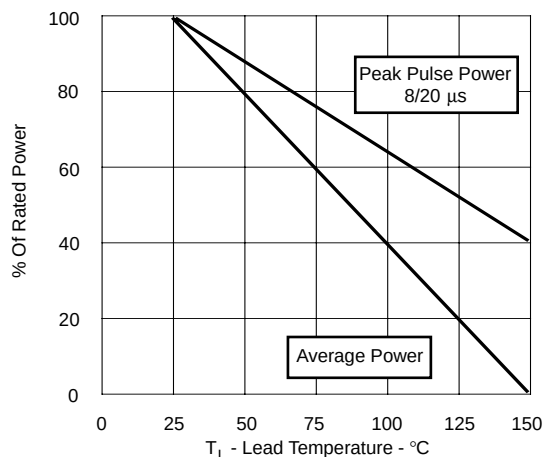
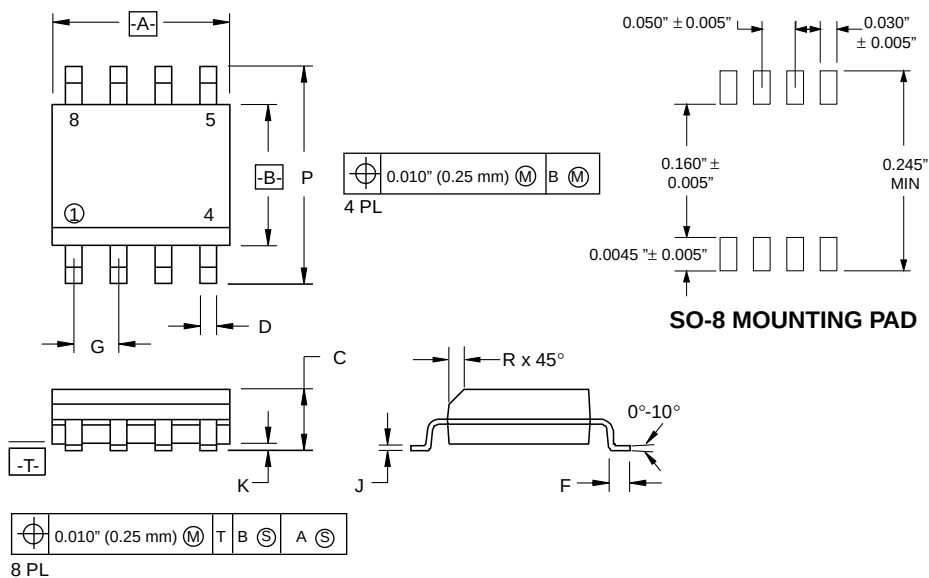


FIGURE 3
POWER DERATING CURVE



SO-8 PACKAGE OUTLINE



SO-8 PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.80	5.00	0.189	0.196
B	3.80	4.00	0.150	0.157
C	1.35	1.75	0.054	0.068
D	0.35	0.49	0.014	0.019
F	0.40	1.250	0.016	0.049
G	1.27 BSC	1.27 BSC	0.05 BSC	0.05 BSC
J	0.18	0.25	0.007	0.009
K	0.10	0.25	0.004	0.008
P	5.78	6.20	0.229	0.244
R	0.25	0.50	0.010	0.019

NOTES:

1. - T - = Seating Plane
2. Dimension "A" is Datum.
3. Dimension "A" and "B" do not include mold protusion.
4. Maximum mold protusion is 0.15" (0.006 mm) per side.
5. Dimensioning and tolerances per ANSI Y14.5M, 1982.