

STEERING DIODE ARRAY

APPLICATIONS

- ✓ USB Interface Ports
- ✓ Cellular Phones
- ✓ Video
- ✓ Handheld Electronics
- ✓ Personal Computers

IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 μ s - Level 2(Line-Gnd) & Level 3(Line-Line)

FEATURES

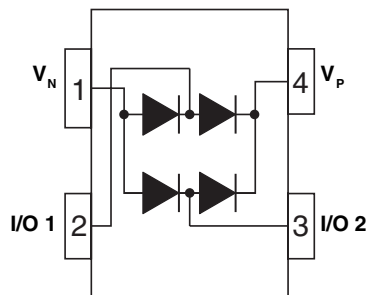
- ✓ ESD Protection > 40 kilovolts
- ✓ 225 Milliwatt Continuous Power Dissipation
- ✓ Provides Two (2) Lines of Protection
- ✓ Low Leakage Current < 1.0 μ A
- ✓ Ultra Low Capacitance: 3pF Typical
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SOT-143
- ✓ Weight 9 milligrams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
 - Tin-Lead - Sn/Pb, 85/15: 240-245°C
 - Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Marking Code



PIN CONFIGURATION



DEVICE CHARACTERISTICS

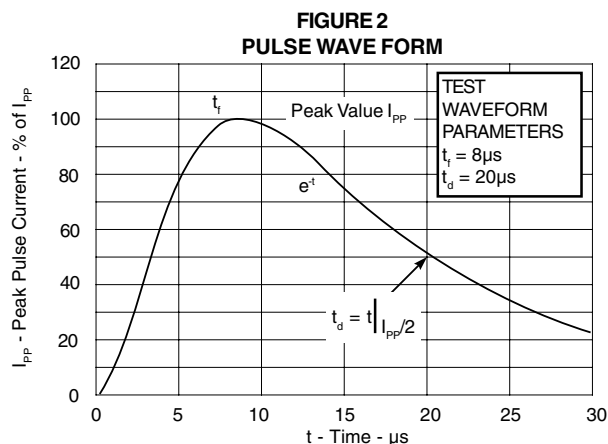
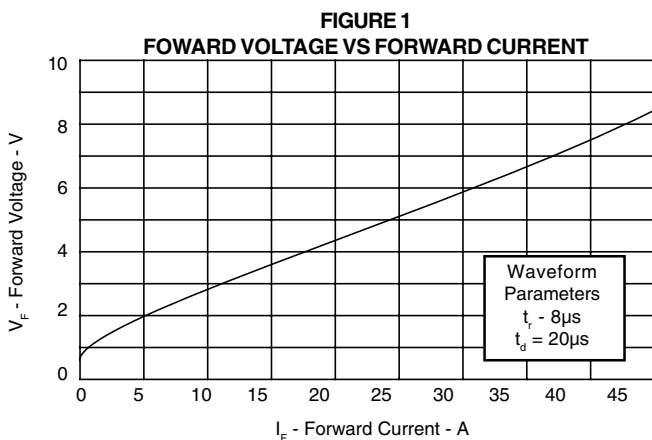
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C
Forward Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	24	A

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING CODE	REPETITIVE PEAK REVERSE VOLTAGE V_{RRM} VOLTS	MINIMUM REVERSE BREAKDOWN VOLTAGE $I @ 50\mu A$ $V_{(BR)}$ VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT $@ V_{RRM}$ I_R μA	MAXIMUM FORWARD CLAMPING VOLTAGE 8/20 μs $I_{PP} @ 1A$ V_{FC} VOLTS	MAXIMUM FORWARD CLAMPING VOLTAGE 8/20 μs $I_{PP} @ 24A$ V_{FC} VOLTS	MAXIMUM CAPACITANCE (See Note 1) $@ 0V, 1 MHz$ C_J pF
SR70	PSA	70	85	1	1.5	7	10

Note 1: Measured between I/O pins and ground.



SOT-143 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE		SOT-143			
PACKAGE DIMENSIONS					
DIM	MILLIMETERS		INCHES		
	MIN	MAX	MIN	MAX	
A	2.80	3.04	0.110	0.120	
B	1.20	1.39	0.047	0.055	
C	0.84	1.14	0.033	0.045	
D	0.39	0.50	0.015	0.020	
F	0.79	0.93	0.031	0.037	
G	1.78	2.03	0.070	0.080	
H	0.013	0.10	0.0005	0.004	
J	0.08	0.15	0.003	0.006	
K	0.46	0.60	0.018	0.024	
L	0.445	0.60	0.0175	0.024	
R	0.72	0.83	0.028	0.033	
S	2.11	2.48	0.083	0.098	

MOUNTING PAD				NOTES
TYPICAL				
DIM	Millimeters	Inches		
1	2.85	0.112		
2	2.00	0.079		
3	1.80	0.071		
4	1.90	0.075		
5	1.05	0.041		
6	2.75	0.108		
7	1.20	0.047		
8	0.80	0.031		
9	0.85	0.033		
10	0.85	0.033		
11	0.85	0.033		

NOTES

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

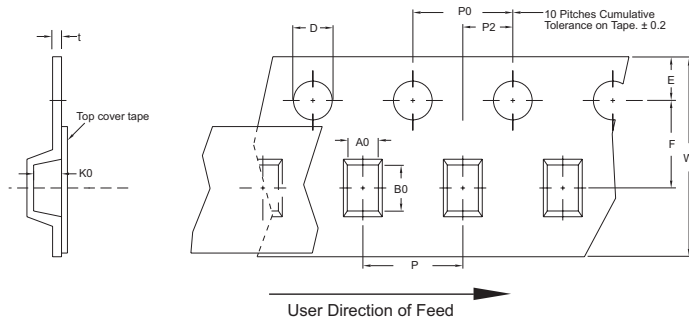
TAPE & REEL ORDERING NOMENCLATURE

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., SR70-T7.
3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., SR70-T13.
4. Suffix -LF = Lead-Free, Pure-Tin Plating, i.e., SR70-LF-T7.

Outline & Dimensions: Rev 2 - 6/06, 06011

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	3.10 ± 0.10	2.70 ± 0.10	1.35 ± 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



COPYRIGHT © ProTek Devices 2003

SPECIFICATIONS: ProTek reserves the right to change the electrical and or mechanical characteristics described herein without notice (except JEDEC).

DESIGN CHANGES: ProTek reserves the right to discontinue product lines without notice, and that the final judgement concerning selection and specifications is the buyer's and that in furnishing engineering and technical assistance, ProTek assumes no responsibility with respect to the selection or specifications of such products.

ProTek Devices
 2929 South Fair Lane, Tempe, AZ 85282
 Tel: 602-431-8101 Fax: 602-431-2288
 E-Mail: sales@protekdevices.com
 Web Site: www.protekdevices.com