

## STEERING DIODE ARRAY

### APPLICATIONS

- ✓ USB Interface Ports
- ✓ Cellular Phones
- ✓ Set Top Box Interface
- ✓ Sensor Interface
- ✓ Video Interface Ports
- ✓ Handheld Electronics
- ✓ Desktop Computers
- ✓ Personal Digital Assistant (PDA)

### IEC COMPATIBILITY (EN61000-4)

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

### FEATURES

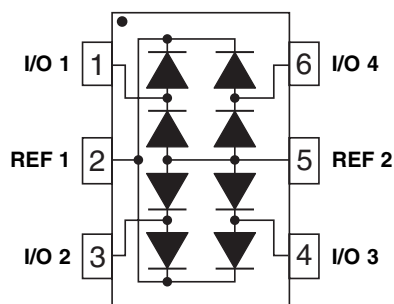
- ✓ ESD Protection > 25 kilovolts
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ Provides Four (4) Lines of Protection
- ✓ Low Leakage Current < 1.0 $\mu$ A
- ✓ Ultra Low Capacitance: 5pF per Diode
- ✓ RoHS Compliant

### MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SOT-23-6 Package
- ✓ Weight 16 milligrams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:  
Pure-Tin - Sn, 100: 260-270°C
- ✓ Consult Factory for Leaded Device Availability
- ✓ 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

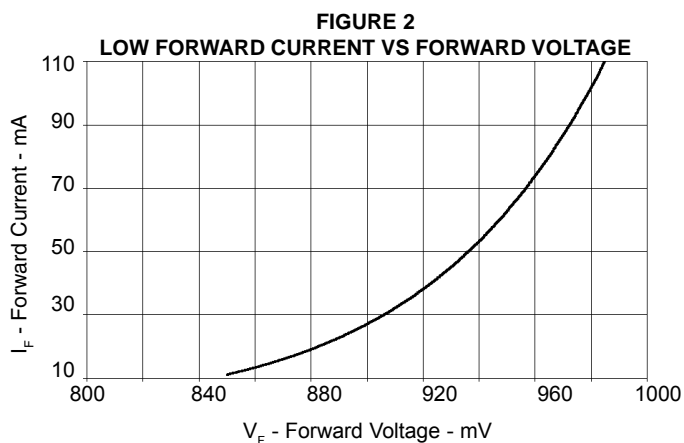
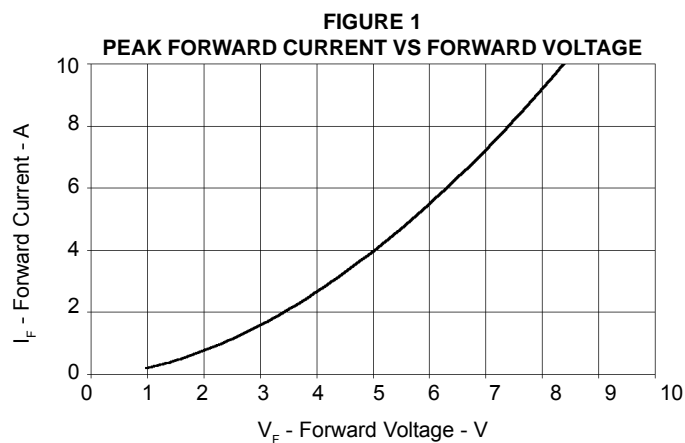
### MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	$T_A$	-55 to 150	°C
Storage Temperature	$T_{STG}$	-55 to 150	°C
Continuous Power Dissipation	$P_{PC}$	500	mW
Repetitive Peak Forward Current @ $t_p=5\mu s$ , $F=50kHz$ (Pin 2-3)	$I_{FRM}$	700	mA

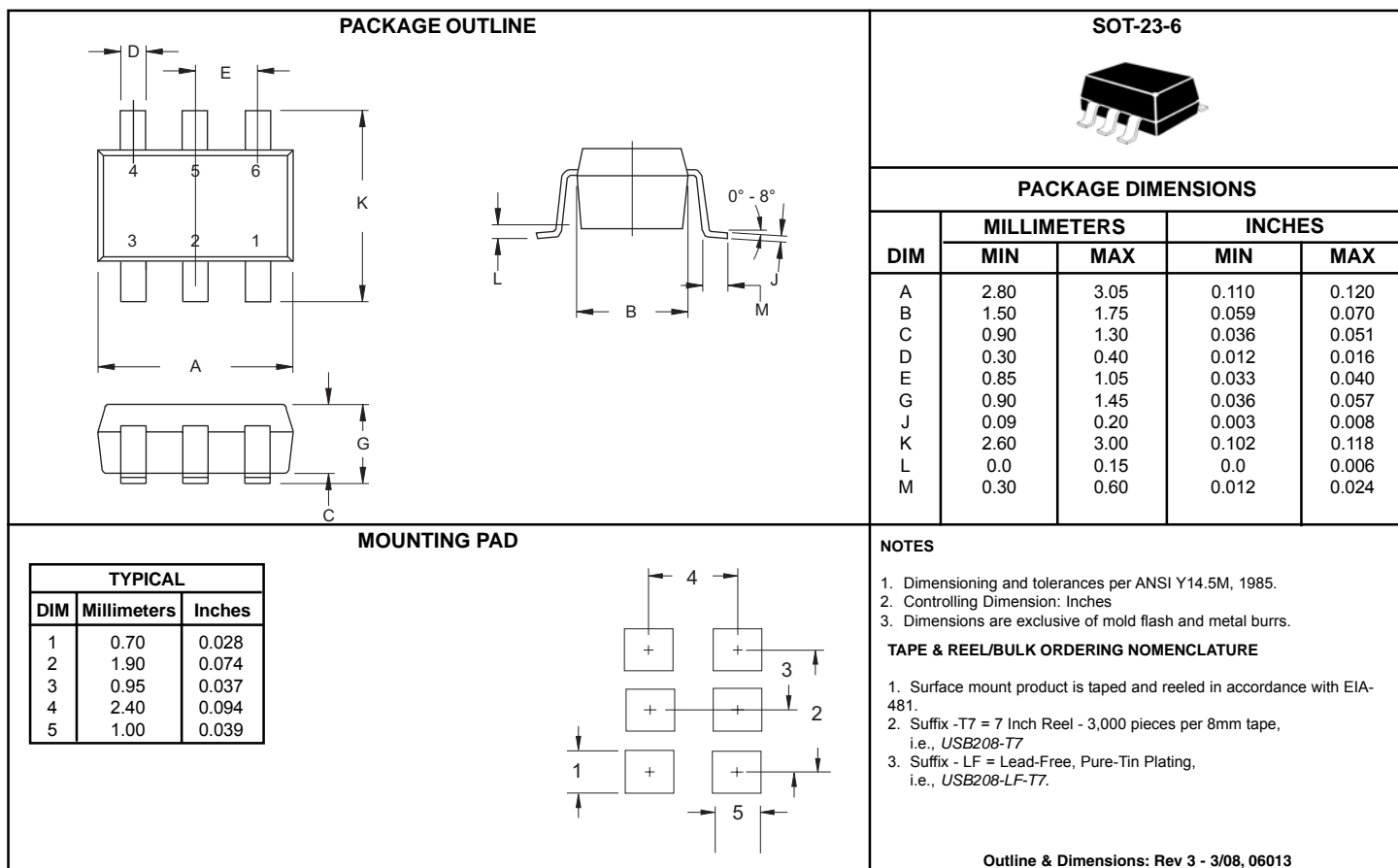
### ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING CODE	REPETITIVE PEAK REVERSE VOLTAGE  @10 $\mu A$ $V_{RRM}$ VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT (PER DIODE)  $V_{RRM}$ @ 5V $I_R$ $\mu A$	TYPICAL FORWARD VOLTAGE  @ 50mA $V_F$ VOLTS	MAXIMUM CAPACITANCE (See Note 1)  $C_J$ pF
USB208	PSB	20	1	1.2	5

**Note 1:** Apply a 5V bias between pins 2 (REF 1) to pin 5 (REF 2). Measure  $C_J$  between any I/O pins to pin 5 (REF 2) and divide by two.

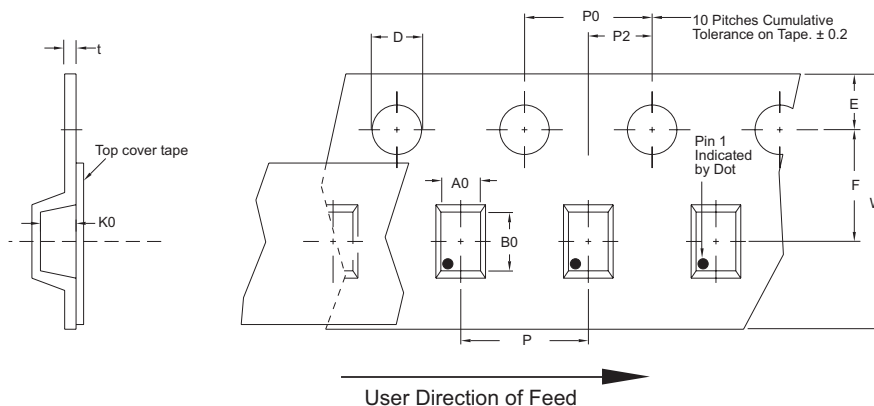


## SOT-23-6 PACKAGE OUTLINE & DIMENSIONS



Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	3.20 ± 0.10	3.20 ± 0.10	1.65 ± 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 2007**

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](mailto:sales@protekdevices.com)  
 Web Site: [www.protekdevices.com](http://www.protekdevices.com)