



USB208

STEERING DIODE ARRAY

APPLICATIONS

- ✓ USB Interface Ports
- ✓ Cellular Phones
- ✓ Set Top Box Interface
- ✓ Sensor Interface
- ✓ Video Interface Ports
- ✓ Handheld Electronics
- ✓ Desktop PCs Computers
- ✓ Personnal 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 < 1.0μA**
- ✓ **ULTRA LOW CAPACITANCE: 5pF Per Diode**

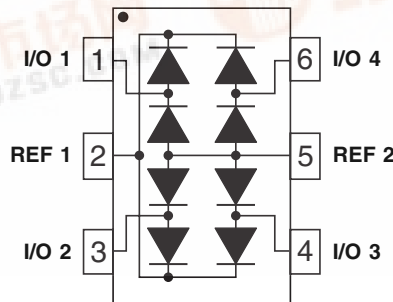
MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-23-6
- ✓ Weight 66 milligrams (Approximate)
- ✓ 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



SOT-23-6

PIN CONFIGURATION



DEVICE CHARACTERISTICS

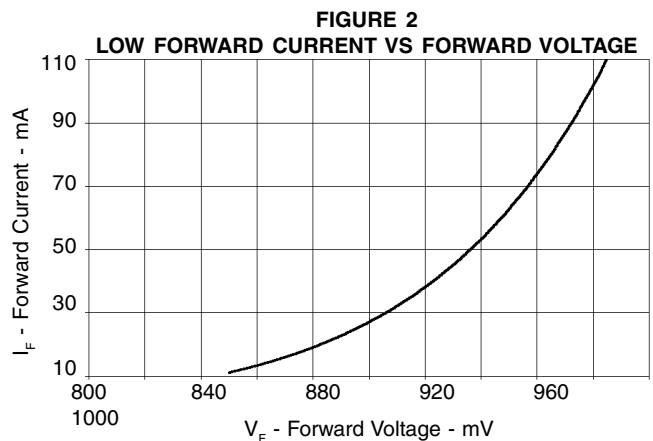
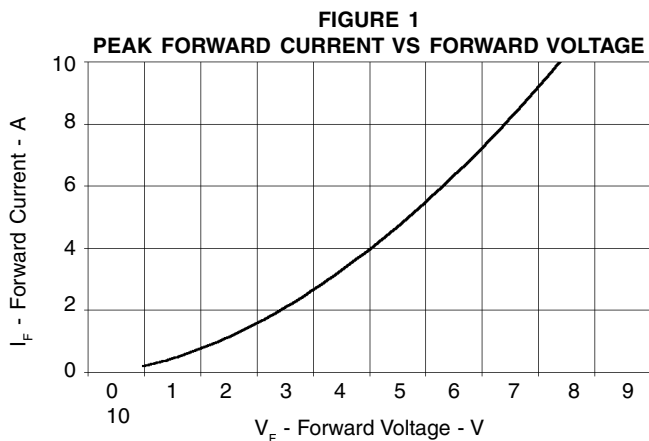
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C
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

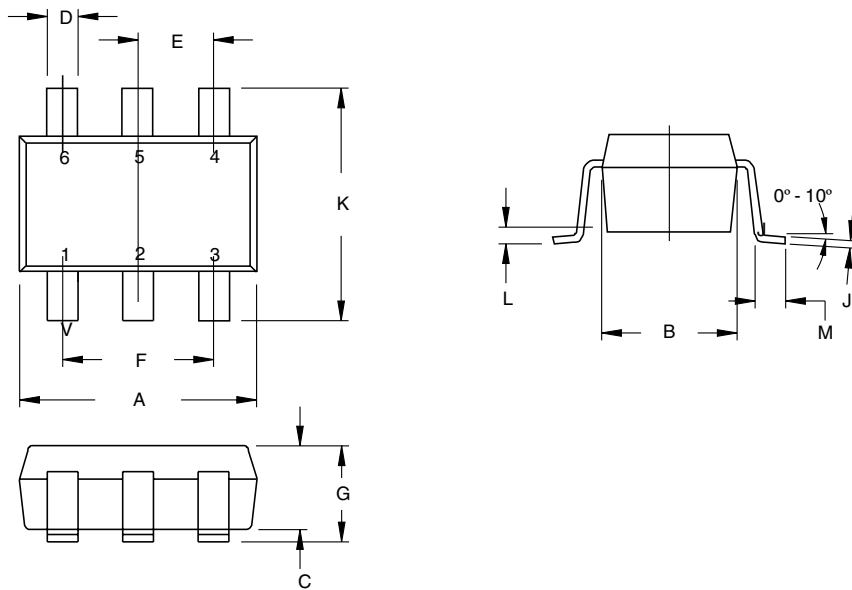
PART NUMBER	DEVICE MARKING CODE	REPETITIVE PEAK REVERSE VOLTAGE @ 10 μA V_{RRM} VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT (PER DIODE) V_{RRM} @ 5V I_R μA	MAXIMUM FORWARD VOLTAGE @ 50mA V_F VOLTS	MAXIMUM CAPACITANCE (See Note 1) C_j pF
USB208	PSB	20	1	1.2	5

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.

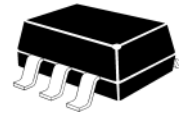


PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE



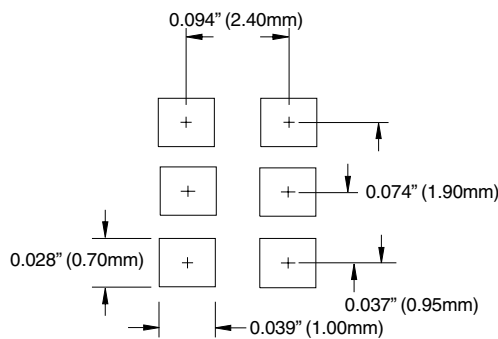
SOT-23-6



PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.05	0.110	0.120
B	1.50	1.75	0.059	0.070
C	0.90	1.30	0.036	0.051
D	0.35	0.50	0.014	0.020
E	0.85	1.05	0.033	0.040
F	1.70	2.10	0.067	0.083
G	0.90	1.45	0.036	0.057
J	0.090	0.20	0.0035	0.008
K	2.60	3.00	0.102	0.118
L	0.20 TYP	0.20 TYP	0.007 TYP	0.007 TYP
M	0.35	0.55	0.014	0.022

MOUNTING PAD



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., *USB208-T7*.
3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., *USB208-T13*.

Outline & Dimensions: Rev 1 - 11/01, 06013