

LOW CAPACITANCE STEERING DIODE ARRAY

APPLICATIONS

- ✓ USB Interface Ports
- ✓ Cellular Phones
- ✓ Video Interface Ports
- ✓ Desktop PCs
- ✓ Hand Held Electronics
- ✓ Personal Digital Assistants (PDAs)

IEC COMPATIBILITY (EN61000-4)

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

FEATURES

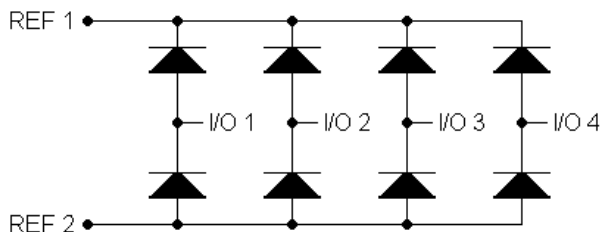
- ✓ 500 Milliwatt Continuous Power Dissipation
- ✓ ESD Protection > 25 kilovolts
- ✓ Protects 4 Lines
- ✓ **LOW STANDBY CURRENT < 1.0μA**
- ✓ **LOW CAPACITANCE 5pF PER DIODE**

MECHANICAL CHARACTERISTICS

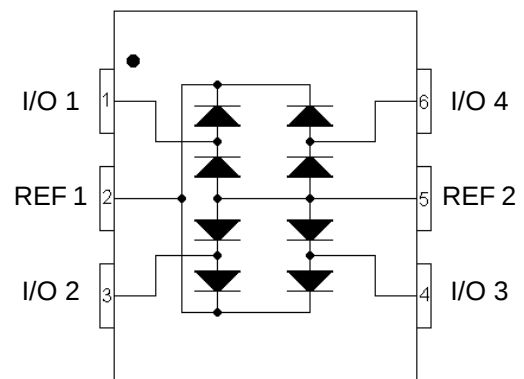
- ✓ Molded JEDEC SOT23-6L
- ✓ Weight 66 Milligrams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481-1-A
- ✓ Marking: Marking Code, Logo & Pin One Defined By DOT on Top of Package



CIRCUIT DIAGRAM



PIN CONFIGURATION

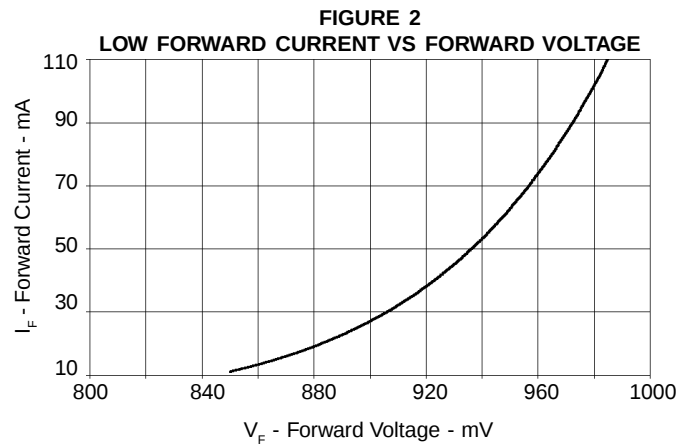
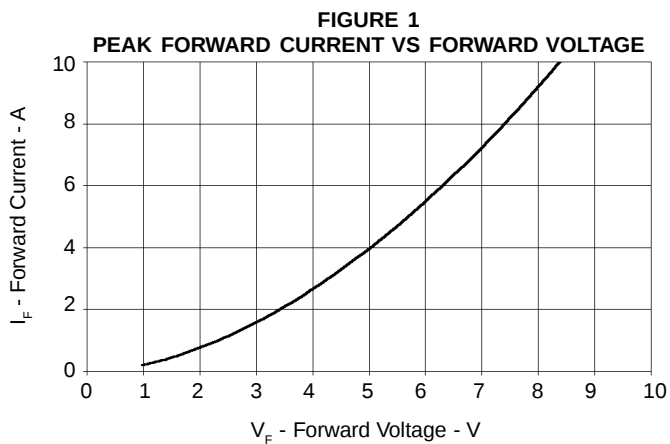


DEVICE CHARACTERISTICS

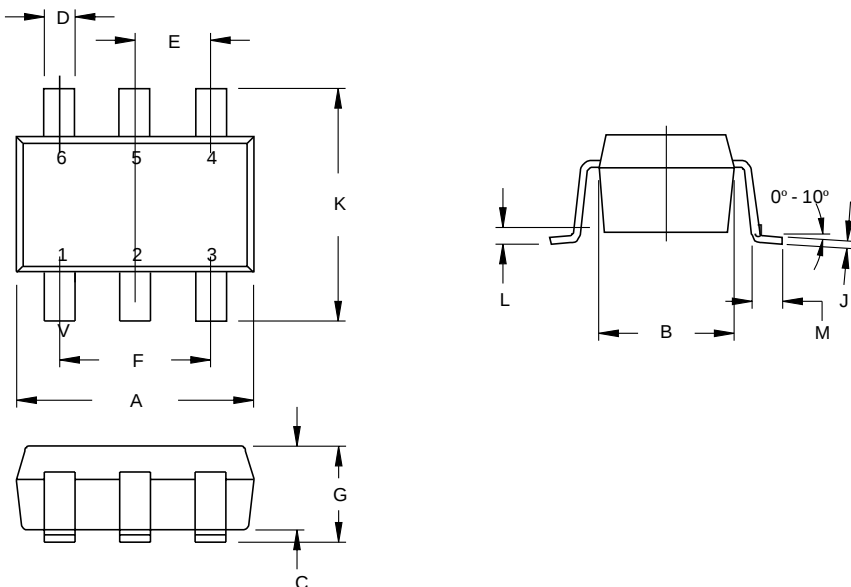
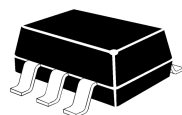
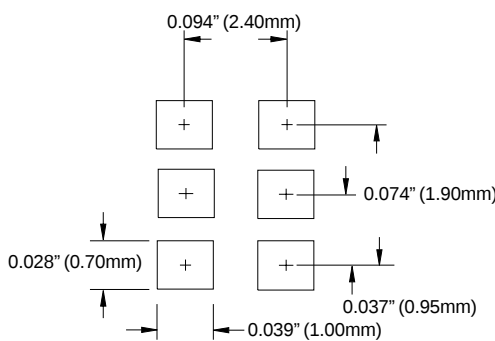
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C
Continuous Power Dissipation	P_{PC}	500	mW
Repetitive Peak Forward Current @ $t_p=5\mu s$, $F=50kHz$ (Pin 2 - 3)	I_{FRM}	700	mA

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified					
PART NUMBER	DEVICE MARKING CODE	REPETITIVE PEAK PULSE VOLTAGE @ 10 μA V_{RRM} VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT (PER DIODE) @5V I_R μA	MAXIMUM FORWARD VOLTAGE @50mA V_F VOLTS	MAXIMUM CAPACITANCE (See Note 1) (Between I/O to Ref 2) pF
USB208	PSB	20	1	1.2	5

Note 1: V_{CC} (Between Reference 1 and Reference 2), = 5V, $f = 1$ MHz



PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE 	SOT-23-6  <table><tr><th colspan="5">PACKAGE DIMENSIONS</th></tr><tr><th rowspan="2">DIM</th><th colspan="2">MILLIMETERS</th><th colspan="2">INCHES</th></tr><tr><th>MIN</th><th>MAX</th><th>MIN</th><th>MAX</th></tr><tr><td>A</td><td>2.80</td><td>3.05</td><td>0.110</td><td>0.120</td></tr><tr><td>B</td><td>1.50</td><td>1.75</td><td>0.059</td><td>0.070</td></tr><tr><td>C</td><td>0.90</td><td>1.30</td><td>0.036</td><td>0.051</td></tr><tr><td>D</td><td>0.35</td><td>0.50</td><td>0.014</td><td>0.020</td></tr><tr><td>E</td><td>0.85</td><td>1.05</td><td>0.033</td><td>0.040</td></tr><tr><td>F</td><td>1.70</td><td>2.10</td><td>0.067</td><td>0.083</td></tr><tr><td>G</td><td>0.90</td><td>1.45</td><td>0.036</td><td>0.057</td></tr><tr><td>J</td><td>0.090</td><td>0.20</td><td>0.0035</td><td>0.008</td></tr><tr><td>K</td><td>2.60</td><td>3.00</td><td>0.102</td><td>0.118</td></tr><tr><td>L</td><td>0.20 TYP</td><td>0.20 TYP</td><td>0.007 TYP</td><td>0.007 TYP</td></tr><tr><td>M</td><td>0.35</td><td>0.55</td><td>0.014</td><td>0.022</td></tr></table>	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
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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. 06013 Rev 1 - 11/01																																																																					

TAPE & REEL PACKAGING:

Surface mount product is taped and reeled in accordance with EIA-481, reel quantities and sizes are as follows:

7 Inch Reel - 3,000 pieces per reel; 13 Inch Reel - 10,000 pieces per reel

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