

LOW CAPACITANCE TVS COMPONENT

APPLICATIONS

- ✓ Ethernet - 10/100/1000 Base T
- ✓ Cellular Phones
- ✓ Personal Digital Assistant (PDA)
- ✓ USB Interfaces

IEC COMPATIBILITY (EN61000-4)

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

FEATURES

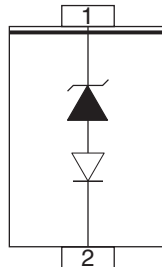
- ✓ ESD Protection > 25 kilovolts
- ✓ Unidirectional Configuration
- ✓ Protects One Unidirectional Line
- ✓ Low Leakage Current < 1.0 μ A
- ✓ **LOW CAPACITANCE: 6pF TYPICAL**
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded EIAJ SC-79
- ✓ Weight 2 milligrams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating
- ✓ 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
- ✓ Device Marking: Marking Code & Polarity Band



PIN CONFIGURATION



DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1	P_{PP}	50	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	5	A
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER	DEVICE MARKING CODE	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MINIMUM SNAP BACK VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
		V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ $I_{SB} = 10mA$ V_{SB} VOLTS	@ $I_p = 1A$ V_C VOLTS	@ V_{WM} I_b μA	@ 0V, 1MHz C pF
PLW2.8	P	2.8	3.0	2.8	5.0	1	6

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

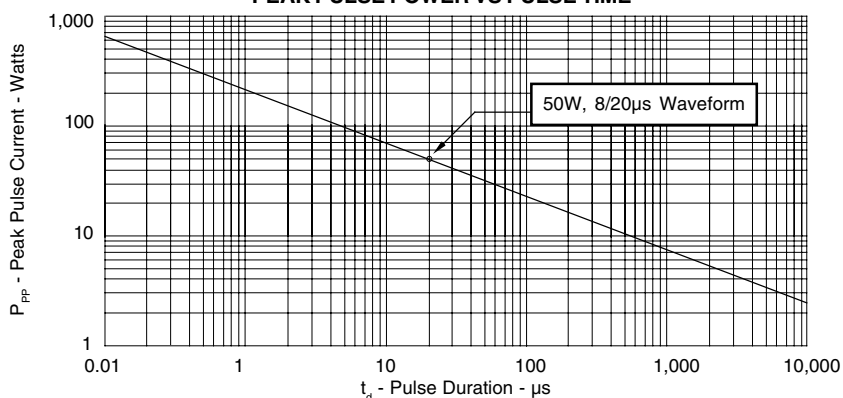
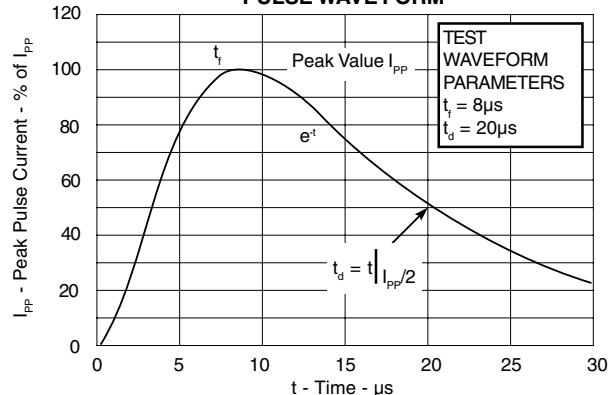
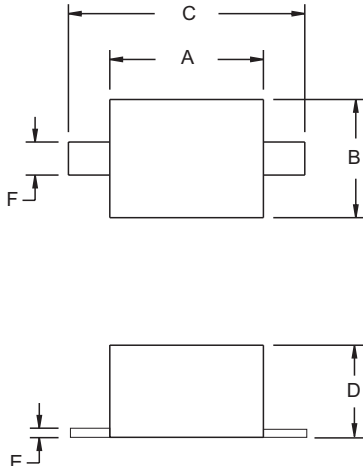

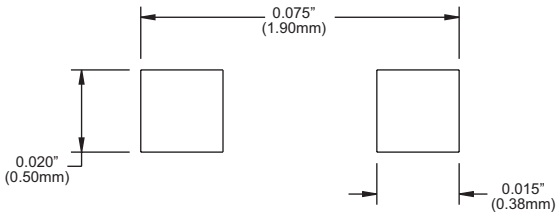


FIGURE 2
PULSE WAVE FORM

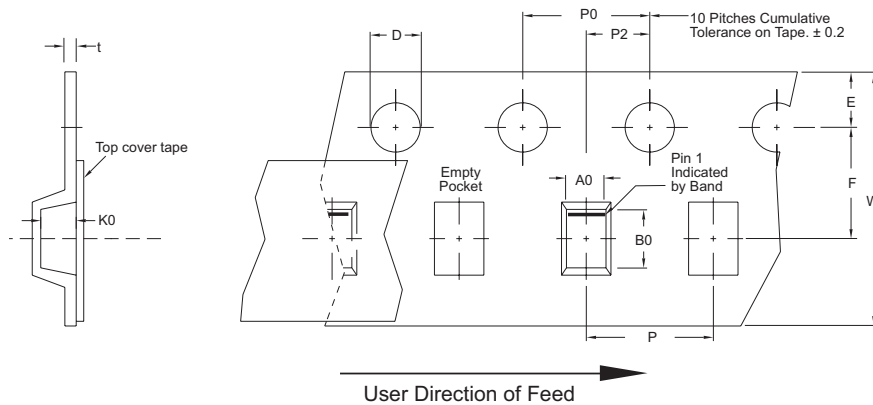


PACKAGE OUTLINE & DIMENSIONS

<p style="text-align: center;">PACKAGE OUTLINE</p> 	<p style="text-align: center;">SC79 PACKAGE</p>  <p style="text-align: center;">PACKAGE DIMENSIONS</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">DIM</th> <th colspan="2">INCHES</th> <th colspan="2">MILLIMETERS</th> </tr> <tr> <th>MIN</th> <th>MAX</th> <th>MIN</th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>0.043</td> <td>0.049</td> <td>1.10</td> <td>1.30</td> </tr> <tr> <td>B</td> <td>0.028</td> <td>0.035</td> <td>0.70</td> <td>0.90</td> </tr> <tr> <td>C</td> <td>0.059</td> <td>0.066</td> <td>1.50</td> <td>1.70</td> </tr> <tr> <td>D</td> <td>0.020</td> <td>0.028</td> <td>0.50</td> <td>0.70</td> </tr> <tr> <td>E</td> <td>0.003</td> <td>0.008</td> <td>0.08</td> <td>0.20</td> </tr> <tr> <td>F</td> <td colspan="2">0.012 BSE</td> <td colspan="2">0.30 BSE</td> </tr> </tbody> </table>	DIM	INCHES		MILLIMETERS		MIN	MAX	MIN	MAX	A	0.043	0.049	1.10	1.30	B	0.028	0.035	0.70	0.90	C	0.059	0.066	1.50	1.70	D	0.020	0.028	0.50	0.70	E	0.003	0.008	0.08	0.20	F	0.012 BSE		0.30 BSE	
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<p style="text-align: center;">MOUNTING PAD</p> 	<p>NOTES</p> <ol style="list-style-type: none"> Controlling Dimensions in Millimeters. Dimensions are exclusive of mold flash and metal burrs. <p>TAPE & REEL ORDERING NOMENCLATURE</p> <ol style="list-style-type: none"> Surface mount product is taped and reeled in accordance with EIA-481. Suffix-T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., <i>PLW2.8-T7</i>. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., <i>PLW2.8-T13</i>. Suffix-LF = Lead-Free, Pure Tin Plating, i.e., <i>PLW2.8-LF-T7</i>. <p style="text-align: right;">Outline & Dimensions: Rev 2- 9/05, 06037</p>																																							

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	1.00 ± 0.10	1.95 ± 0.05	0.75 ± 0.05	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



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