



GBLCSC03 thru GBLCSC08C

ULTRA LOW CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ Ethernet - 10/100/1000 Base T
- ✓ Cellular Phones
- ✓ Handheld - Wireless Systems
- ✓ Personal Digital Assistant (PDA)
- ✓ USB Interface

IEC COMPATIBILITY (EN61000-4)

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

FEATURES

- ✓ 200 Watts Peak Pulse Power per Line (tp=8/20µs)
- ✓ Unidirectional & Bidirectional Configurations
- ✓ Replacement for MLV (0603)
- ✓ Protects One Power or I/O Port
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Clamping Voltage
- ✓ Available from 3V to 8V
- ✓ ULTRA LOW CAPACITANCE: 1pF Typical
- ✓ RoHS Compliant

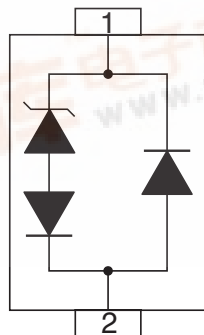
MECHANICAL CHARACTERISTICS

- ✓ Molded EIAJ SC-79 Package
- ✓ Weight 2 milligrams (Approximate)
- ✓ Available 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
- ✓ Device Marking: Marking Code & Polarity Band (Unidirectional Only)

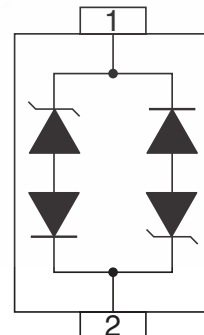


PIN CONFIGURATIONS

UNIDIRECTIONAL



BIDIRECTIONAL



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DEVICE CHARACTERISTICS

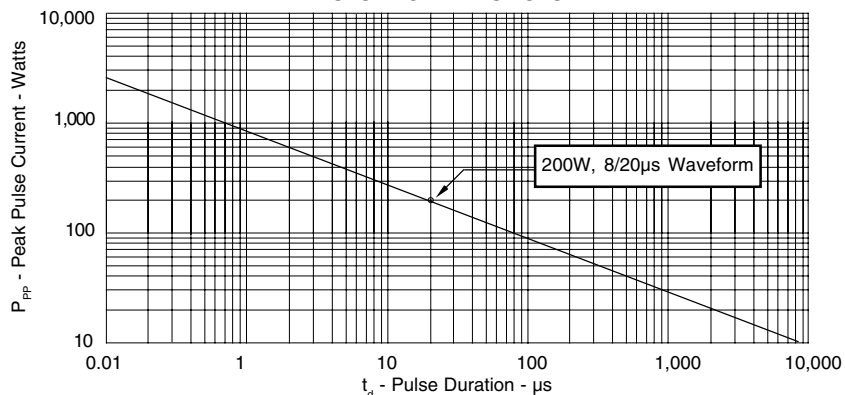
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 8/20μs) - See Figure 1	P _{PP}	200	Watts
Storage Temperature	T _{STG}	-55°C to 150°C	°C
Operating Temperature	T _A	-55°C to 150°C	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER (See Note 1 & Note 2)	DEVICE MARKING	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
		V _{WM} VOLTS	@ 1mA V _(BR) VOLTS	@ 8/20μs V _C @ I _{PP}	@ V _{WM} I _D μA	@ 0V, 1 MHz C pF
GBLCSC03	3	3.3	4.0	13.0V @ 10.0A	1.0	1
GBLCSC03C	H	3.3	4.0	13.0V @ 10.0A	1.0	1
GBLCSC05	5	5.0	6.0	16.0V @ 10.0A	1.0	1
GBLCSC05C	O	5.0	6.0	16.0V @ 10.0A	1.0	1
GLBCSC08	I	8.0	8.5	--	1.0	1
GBLCSC08C	K	8.0	8.5	--	1.0	1

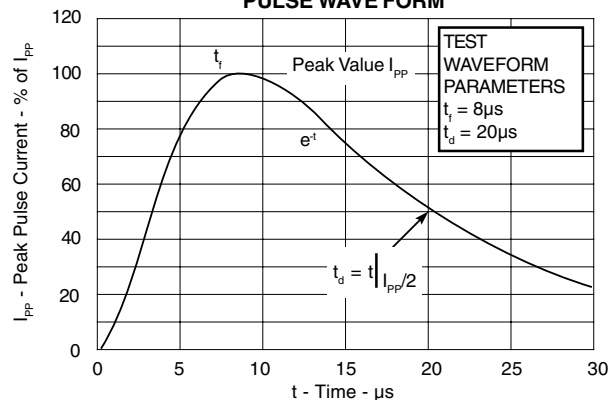
Note 1: Part numbers with an additional "C" suffix are bidirectional devices, i.e., GBLCSC05C. For other voltages contact factory.

Note 2: For Bidirectional Devices Only: Electrical characteristics apply in both directions.

**FIGURE 1
PEAK PULSE POWER VS PULSE TIME**

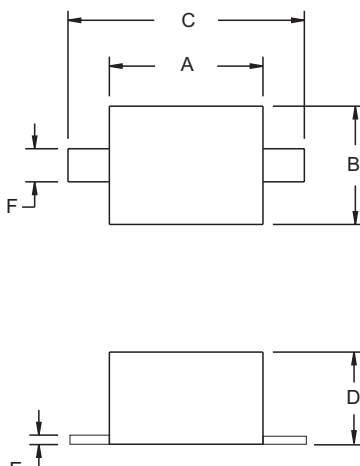

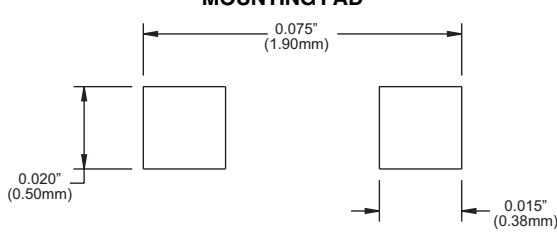


**FIGURE 2
PULSE WAVE FORM**



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SC-79 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 - 4,000 pieces per 8mm tape, <i>i.e.</i>, GBLCS05-LF-T74. Suffix-LF = Lead-Free, Pure Tin Plating, <i>i.e.</i>, GBLCS05C-LF-T74. <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

