

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

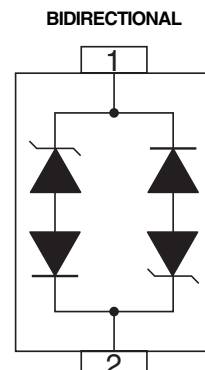
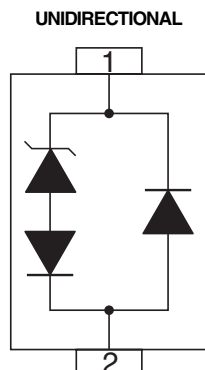
- ✓ 200 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- ✓ Unidirectional & Bidirectional Configurations
- ✓ Replacement for MLV (0603)
- ✓ Protects One Power or I/O Port
- ✓ ESD Protection > 40 kilovolts
- ✓ Low Clamping Voltage
- ✓ Available from 3V to 8V
- ✓ ULTRA LOW CAPACITANCE: 1pF Typical
-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



GBLCSC03 thru GBLCSC08C

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}	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 V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 μs $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	TYPICAL CAPACITANCE @ 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., GBLSC05C. 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

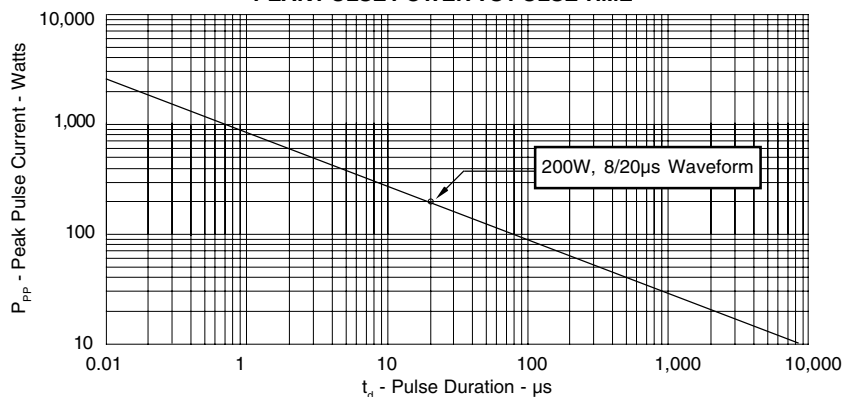
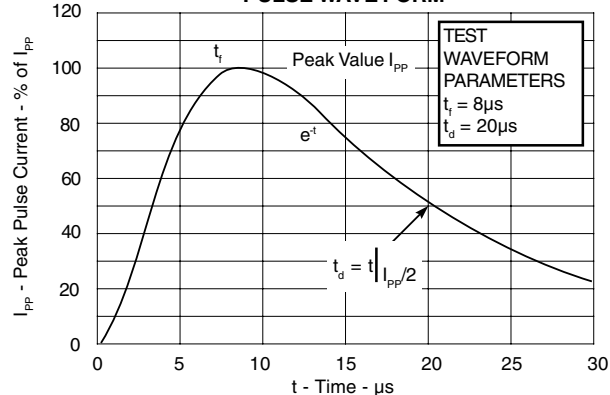


FIGURE 2
PULSE WAVE FORM



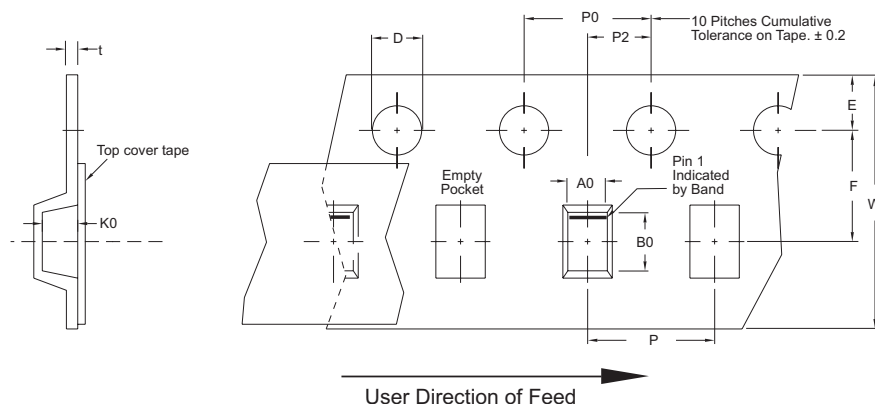
GBLCSC03 thru GBLCSC08C

SC-79 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE	SC79 PACKAGE																																							
	PACKAGE DIMENSIONS <table><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><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></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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MOUNTING PAD	NOTES 1. Controlling Dimensions in Millimeters. 2. 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 - 4,000 pieces per 8mm tape, i.e., GBLCS05-LF-T74. 3. Suffix-LF = Lead-Free, Pure Tin Plating, i.e., GBLCS05C-LF-T74. Outline & Dimensions: Rev 2 - 9/05, 06037																																							

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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