

ELECTRICAL CHARACTERISTICS @ 25°C

MICROSEMI PART NUMBER		REVERSE STANDOFF VOLTAGE V_{WM}	BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_{(BR)}$ Volts		MAXIMUM CLAMPING VOLTAGE V_C @ I_{PP} Volts	PEAK PULSE CURRENT (See Fig. 2) I_{PP} Amps	MAXIMUM STANDBY CURRENT @ V_{WM} I_D μA
GULL-WING LEAD	MODIFIED "J" BEND LEAD		MIN.	MAX.			
SMLG5.0	SMLJ5.0	5.0	6.40 – 7.30	10	9.6	312.5	1000
SMLG5.0A	SMLJ5.0A	5.0	6.40 – 7.00	10	9.2	326.0	1000
SMLG6.0	SMLJ6.0	6.0	6.67 – 8.15	10	11.4	263.2	1000
SMLG6.0A	SMLJ6.0A	6.0	6.67 – 7.37	10	10.3	291.3	1000
SMLG6.5	SMLJ6.5	6.5	7.22 – 8.82	10	12.3	243.9	500
SMLG6.5A	SMLJ6.5A	6.5	7.22 – 7.98	10	11.2	267.9	500
SMLG7.0	SMLJ7.0	7.0	7.78 – 9.51	10	13.3	225.6	200
SMLG7.0A	SMLJ7.0A	7.0	7.78 – 8.60	10	12.0	250.0	200
SMLG7.5	SMLJ7.5	7.5	8.33 – 10.2	1	14.3	209.8	100
SMLG7.5A	SMLJ7.5A	7.5	8.33 – 9.21	1	12.9	232.6	100
SMLG8.0	SMLJ8.0	8.0	8.89 – 10.9	1	15.0	200.0	50
SMLG8.0A	SMLJ8.0A	8.0	8.89 – 9.83	1	13.6	220.6	50
SMLG8.5	SMLJ8.5	8.5	9.44 – 11.5	1	15.9	188.6	25
SMLG8.5A	SMLJ8.5A	8.5	9.44 – 10.4	1	14.4	208.4	25
SMLG9.0	SMLJ9.0	9.0	10.0 – 12.2	1	16.9	177.4	10
SMLG9.0A	SMLJ9.0A	9.0	10.0 – 11.1	1	15.4	194.8	10
SMLG10	SMLJ10	10	11.1 – 13.6	1	18.8	159.6	5
SMLG10A	SMLJ10A	10	11.1 – 12.3	1	17.0	176.4	5
SMLG11	SMLJ11	11	12.2 – 14.9	1	20.1	149.2	5
SMLG11A	SMLJ11A	11	12.2 – 13.5	1	18.2	164.8	5
SMLG12	SMLJ12	12	13.3 – 16.3	1	22.0	136.4	5
SMLG12A	SMLJ12A	12	13.3 – 14.7	1	19.9	150.6	5
SMLG13	SMLJ13	13	14.4 – 17.6	1	23.8	126.0	5
SMLG13A	SMLJ13A	13	14.4 – 15.9	1	21.5	139.4	5
SMLG14	SMLJ14	14	15.6 – 19.1	1	25.8	116.2	2
SMLG14A	SMLJ14A	14	15.6 – 17.2	1	23.2	129.4	2
SMLG15	SMLJ15	15	16.7 – 20.4	1	26.9	111.6	2
SMLG15A	SMLJ15A	15	16.7 – 18.5	1	24.4	123.0	2
SMLG16	SMLJ16	16	17.8 – 21.8	1	28.8	104.2	2
SMLG16A	SMLJ16A	16	17.8 – 19.7	1	26.0	115.4	2
SMLG17	SMLJ17	17	18.9 – 23.1	1	30.5	98.4	2
SMLG17A	SMLJ17A	17	18.9 – 20.9	1	27.6	106.6	2
SMLG18	SMLJ18	18	20.0 – 24.4	1	32.2	93.2	2
SMLG18A	SMLJ18A	18	20.0 – 22.1	1	29.2	102.8	2
SMLG20	SMLJ20	20	22.2 – 27.1	1	35.8	83.8	2
SMLG20A	SMLJ20A	20	22.2 – 24.5	1	32.4	92.6	2
SMLG22	SMLJ22	22	24.4 – 29.8	1	39.4	76.2	2
SMLG22A	SMLJ22A	22	24.4 – 26.9	1	35.5	84.4	2
SMLG24	SMLJ24	24	26.7 – 32.6	1	43.0	69.8	2
SMLG24A	SMLJ24A	24	26.7 – 29.5	1	38.9	77.2	2
SMLG26	SMLJ26	26	28.9 – 35.3	1	46.6	64.4	2
SMLG26A	SMLJ26A	26	28.9 – 31.9	1	42.1	71.2	2
SMLG28	SMLJ28	28	31.1 – 38.0	1	50.0	60.0	2
SMLG28A	SMLJ28A	28	31.1 – 34.4	1	45.4	66.0	2
SMLG30	SMLJ30	30	33.3 – 40.7	1	53.5	56.0	2
SMLG30A	SMLJ30A	30	33.3 – 36.8	1	48.4	62.0	2
SMLG33	SMLJ33	33	36.7 – 44.9	1	59.0	50.4	2
SMLG33A	SMLJ33A	33	36.7 – 40.6	1	53.3	56.2	2
SMLG36	SMLJ36	36	40.0 – 48.9	1	64.3	46.6	2
SMLG36A	SMLJ36A	36	40.0 – 44.2	1	58.1	51.6	2
SMLG40	SMLJ40	40	44.4 – 54.3	1	71.4	42.0	2
SMLG40A	SMLJ40A	40	44.4 – 49.1	1	64.5	46.4	2
SMLG43	SMLJ43	43	47.8 – 58.4	1	76.7	39.2	2
SMLG43A	SMLJ43A	43	47.8 – 52.8	1	69.4	43.2	2
SMLG45	SMLJ45	45	50.0 – 61.1	1	80.3	37.4	2
SMLG45A	SMLJ45A	45	50.0 – 55.3	1	72.7	41.2	2

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GULL-WING LEAD	MODIFIED "J" BEND LEAD		MIN.	MAX.			
SMLG48	SMLJ48	48	53.3 – 65.1	1	85.5	35.0	2
SMLG48A	SMLJ48A	48	53.3 – 58.9	1	77.4	38.8	2
SMLG51	SMLJ51	51	56.7 – 69.3	1	91.1	37.0	2
SMLG51A	SMLJ51A	51	56.7 – 62.7	1	82.4	36.4	2
SMLG54	SMLJ54	54	60.0 – 73.3	1	96.3	31.2	2
SMLG54A	SMLJ54A	54	60.0 – 66.3	1	87.1	34.4	2
SMLG58	SMLJ58	58	64.4 – 78.7	1	103.0	29.2	2
SMLG58A	SMLJ58A	58	64.4 – 71.2	1	93.6	32.0	2
SMLG60	SMLJ60	60	66.7 – 81.5	1	107.0	28.0	2
SMLG60A	SMLJ60A	60	66.7 – 73.7	1	96.8	31.0	2
SMLG64	SMLJ64	64	71.1 – 86.9	1	114.0	26.4	2
SMLG64A	SMLJ64A	64	71.1 – 78.6	1	103.0	29.2	2
SMLG70	SMLJ70	70	77.8 – 95.1	1	125	24.0	2
SMLG70A	SMLJ70A	70	77.8 – 86.0	1	113	26.6	2
SMLG75	SMLJ75	75	83.3 – 102.0	1	134	22.4	2
SMLG75A	SMLJ75A	75	83.3 – 92.1	1	121	24.8	2
SMLG78	SMLJ78	78	86.7 – 106.0	1	139	21.6	2
SMLG78A	SMLJ78A	78	86.7 – 95.8	1	126	22.8	2
SMLG85	SMLJ85	85	94.4 – 115.0	1	151	19.8	2
SMLG85A	SMLJ85A	85	94.4 – 104.0	1	137	20.8	2
SMLG90	SMLJ90	90	100 – 122	1	160	18.8	2
SMLG90A	SMLJ90A	90	100 – 111	1	146	20.6	2
SMLG100	SMLJ100	100	111 – 136	1	179	16.8	2
SMLG100A	SMLJ100A	100	111 – 123	1	162	18.6	2
SMLG110	SMLJ110	110	122 – 149	1	196	15.4	2
SMLG110A	SMLJ110A	110	122 – 135	1	177	16.8	2
SMLG120	SMLJ120	120	133 – 163	1	214	14.0	2
SMLG120A	SMLJ120A	120	133 – 147	1	193	15.6	2
SMLG130	SMLJ130	130	144 – 176	1	231	13.0	2
SMLG130A	SMLJ130A	130	144 – 159	1	209	14.4	2
SMLG150	SMLJ150	150	167 – 204	1	268	11.2	2
SMLG150A	SMLJ150A	150	167 – 185	1	243	12.4	2
SMLG160	SMLJ160	160	178 – 218	1	287	10.4	2
SMLG160A	SMLJ160A	160	178 – 197	1	259	11.6	2
SMLG170	SMLJ170	170	189 – 231	1	304	9.8	2
SMLG170A	SMLJ170A	170	189 – 209	1	275	11.0	2

- For Bidirectional device types indicate a C or CA suffix after the part number. (i.e.: SMLG170CA or SMLJ170C). Bidirectional capacitance is half that shown in Figure 4 at zero volts.
- Microsemi Corp's SML series (3000W) surface mountable packages are designed specifically for transient voltage suppression. The wide leads assure a large surface contact for good heat dissipation, and a low resistance path for surge current flow to ground. These high-speed transient voltage suppressors can be used to effectively protect sensitive components such as integrated circuits and MOS devices.

SYMBOLS & DEFINITIONS

Symbol	Definition	Symbol	Definition
V_{WM}	Working Peak (Standoff) Voltage	I_{PP}	Peak Pulse Current
P_{PP}	Peak Pulse Power	V_C	Clamping Voltage
$V_{(BR)}$	Breakdown Voltage	$I_{(BR)}$	Breakdown Current for $V_{(BR)}$
I_D	Standby Current		

GRAPHS

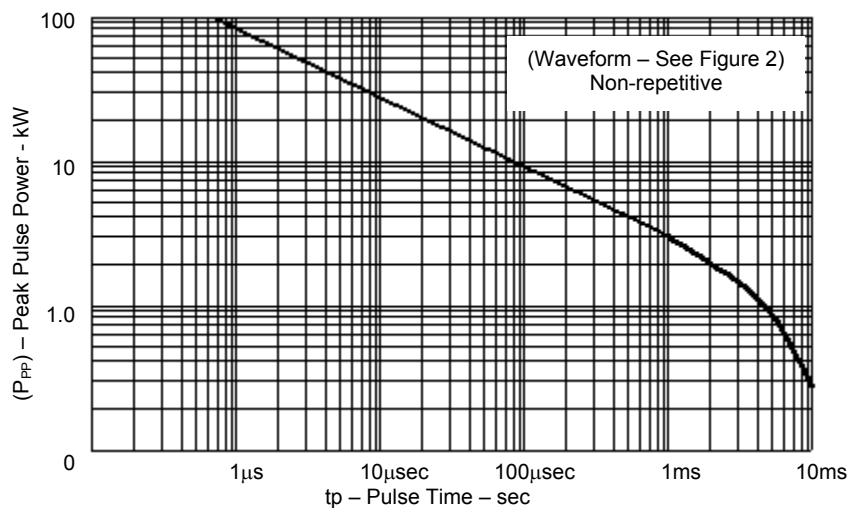


FIGURE 1 – Peak Pulse Power vs. Pulse Time

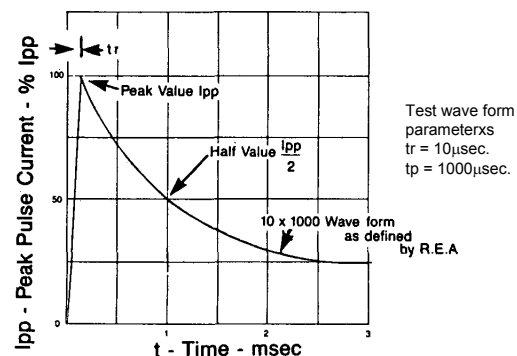


FIGURE 2 – PULSE WAVEFORM

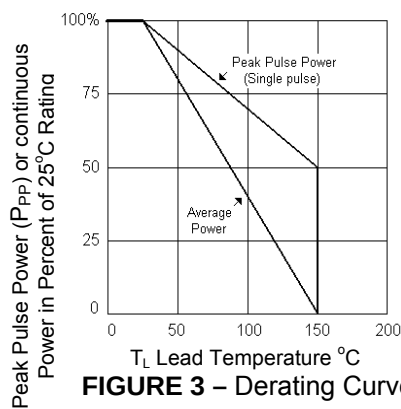


FIGURE 3 – Derating Curve

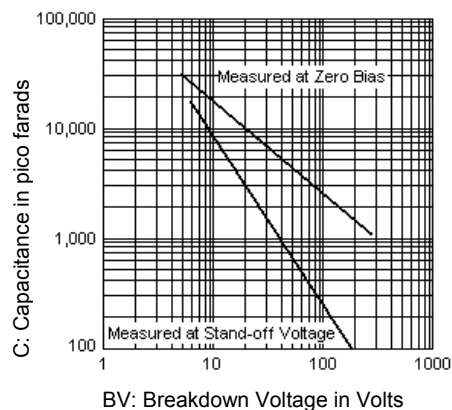
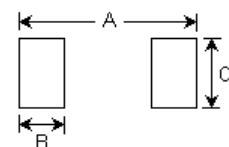


FIGURE 4

Typical Capacitance vs.
Breakdown Voltage

PAD LAYOUT



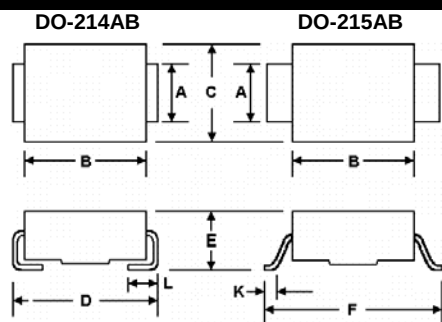
SMLJ

	INCHES	mm
A	.390	9.90
B	.110	2.79
C	.150	3.81

SMLG

	INCHES	mm
A	0.510	12.95
B	0.110	2.79
C	0.150	3.81

PACKAGE DIMENSIONS



DIMENSIONS IN INCHES								
	A	B	C	D	E	F	K	L
MIN	.115	.260	.220	.305	.077	.380	.025	.030
MAX	.121	.280	.245	.320	.104	.400	.040	.060
DIMENSIONS IN MILLIMETERS								
	A	B	C	D	E	F	K	L
MIN	2.92	6.60	5.59	7.75	1.95	9.65	0.635	.760
MAX	3.07	7.11	6.22	8.13	2.65	10.16	1.016	1.520

Typical Standoff Height: 0.004" – 0.008" (0.1mm – 0.2mm)