

ELECTRICAL CHARACTERISTICS @ $T_L = 30^\circ\text{C}$

MICROSEMI PART NUMBER		ZENER VOLTAGE	TEST CURRENT	DYNAMIC IMPEDANCE	KNEE CURRENT	KNEE IMPEDANCE	REVERSE CURRENT	REVERSE VOLTAGE	MAX. DC CURRENT
GULL-WING LEAD	C-BEND (MOD. "J")	V_Z	I_{ZT}	Z_{ZT}	I_{ZK}	Z_{ZK}	I_R	V_R	I_{ZM}
		Volts	mA	Ohms	mA	Ohms	μadc	Volts	mA
SMBG5913	SMBJ5913	3.3	113.6	10.0	1.0	500	100.0	1.0	606
SMBG5914	SMBJ5914	3.6	104.2	9.0	1.0	500	75.0	1.0	554
SMBG5915	SMBJ5915	3.9	96.1	7.5	1.0	500	25.0	1.0	512
SMBG5916	SMBJ5916	4.3	87.2	6.0	1.0	500	5.0	1.0	464
SMBG5917	SMBJ5917	4.7	79.8	5.0	1.0	500	5.0	1.5	425
SMBG5918	SMBJ5918	5.1	73.5	4.0	1.0	350	5.0	2.0	392
SMBG5919	SMBJ5919	5.6	66.9	2.0	1.0	250	5.0	3.0	356
SMBG5920	SMBJ5920	6.2	60.5	2.0	1.0	200	5.0	4.0	321
SMBG5921	SMBJ5921	6.8	55.1	2.5	1.0	200	5.0	5.2	293
SMBG5922	SMBJ5922	7.5	50.0	3.0	0.5	400	5.0	6.0	266
SMBG5923	SMBJ5923	8.2	45.7	3.5	0.5	400	5.0	6.5	242
SMBG5924	SMBJ5924	9.1	41.2	4.0	0.5	500	5.0	7.0	218
SMBG5925	SMBJ5925	10	37.5	4.5	0.25	500	5.0	8.0	200
SMBG5926	SMBJ5926	11	34.1	5.5	0.25	550	1.0	8.4	181
SMBG5927	SMBJ5927	12	31.2	6.5	0.25	550	1.0	9.1	166
SMBG5928	SMBJ5928	13	28.8	7.0	0.25	550	1.0	9.9	153
SMBG5929	SMBJ5929	15	25.0	9.0	0.25	600	1.0	11.4	133
SMBG5930	SMBJ5930	16	23.4	10.0	0.25	600	1.0	12.2	122
SMBG5931	SMBJ5931	18	20.8	12.0	0.25	650	1.0	13.7	110
SMBG5932	SMBJ5932	20	18.7	14.0	0.25	650	1.0	15.2	100
SMBG5933	SMBJ5933	22	17.0	17.5	0.25	650	1.0	16.7	90
SMBG5934	SMBJ5934	24	15.6	19.0	0.25	700	1.0	18.2	82
SMBG5935	SMBJ5935	27	13.9	23.0	0.25	700	1.0	20.6	73
SMBG5936	SMBJ5936	30	12.5	28.0	0.25	750	1.0	22.8	66
SMBG5937	SMBJ5937	33	11.4	33.0	0.25	800	1.0	25.1	60
SMBG5938	SMBJ5938	36	10.4	38.0	0.25	850	1.0	27.4	54
SMBG5939	SMBJ5939	39	9.6	45.0	0.25	900	1.0	29.7	50
SMBG5940	SMBJ5940	43	8.7	53.0	0.25	950	1.0	32.7	45
SMBG5941	SMBJ5941	47	8.0	67.0	0.25	1000	1.0	35.8	41
SMBG5942	SMBJ5942	51	7.3	70.0	0.25	1100	1.0	38.8	38
SMBG5943	SMBJ5943	56	6.7	86.0	0.25	1300	1.0	42.6	34
SMBG5944	SMBJ5944	62	6.0	100.0	0.25	1500	1.0	47.1	32
SMBG5945	SMBJ5945	68	5.5	120.0	0.25	1700	1.0	51.2	29
SMBG5946	SMBJ5946	75	5.0	140.0	0.25	2000	1.0	56.0	26
SMBG5947	SMBJ5947	82	4.6	160.0	0.25	2500	1.0	62.2	24
SMBG5948	SMBJ5948	91	4.1	200.0	0.25	3000	1.0	69.2	10
SMBG5949	SMBJ5949	100	3.7	250.0	0.25	3100	1.0	76.0	20
SMBG5950	SMBJ5950	110	3.4	300.0	0.25	4000	1.0	83.6	17
SMBG5951	SMBJ5951	120	3.1	380.0	0.25	4500	1.0	91.2	16
SMBG5952	SMBJ5952	130	2.9	450.0	0.25	5000	1.0	98.8	14
SMBG5953	SMBJ5953	150	2.5	600.0	0.25	6000	1.0	114.0	13
SMBG5954	SMBJ5954	160	2.3	700.0	0.25	6500	1.0	121.6	12
SMBG5955	SMBJ5955	180	2.1	900.0	0.25	7000	1.0	136.8	10
SMBG5956	SMBJ5956	200	1.9	1200.0	0.25	8000	1.0	152.0	9

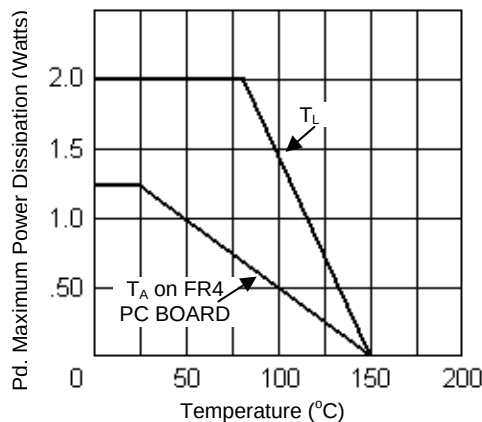
NOTE 1: No suffix indicates a +/- 20% tolerance on nominal V_Z . Suffix A denotes a +/-10% tolerance, B denotes a +/-5% tolerance, C denotes a +/-2% tolerance, and D denotes a +/-1% tolerance.

NOTE 2: Zener voltage (V_Z) is measured at $T_L = 30^\circ\text{C}$ and 20 seconds after application of dc current.

NOTE 3: The zener impedance is derived from 1 kHz ac voltage resulting from an ac current modulation having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) superimposed on I_{ZT} or I_{ZK} . See Micro Note 202 for zener impedance variation with different operating currents.

NOTE 4: The maximum dc current (I_{ZM}) is based only on the maximum power of 2.0 watts at $T_L \leq 80^\circ\text{C}$. These values must be reduced by 37.5% (1.25 W) when mounted on PC boards as described in Maximum Ratings.

GRAPHS



T_L Lead temp (°C), or T_A on FR4 PC Board
FIGURE 1 – Power Derating Curve

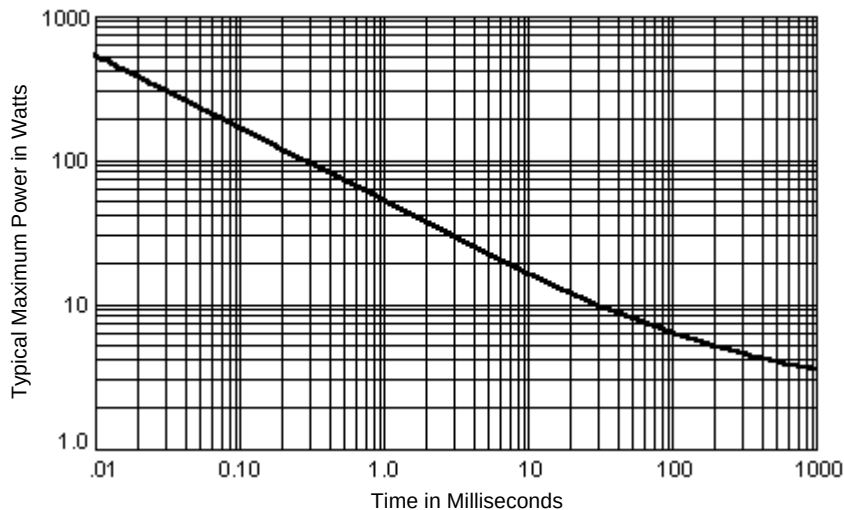


FIGURE 2 – Transient Surge Capability
Square-Wave Pulse Width
(non-Repetitive) in Milliseconds

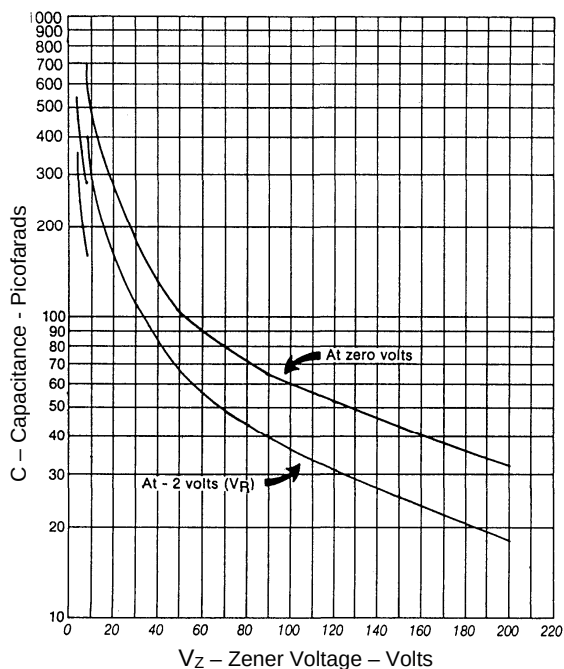
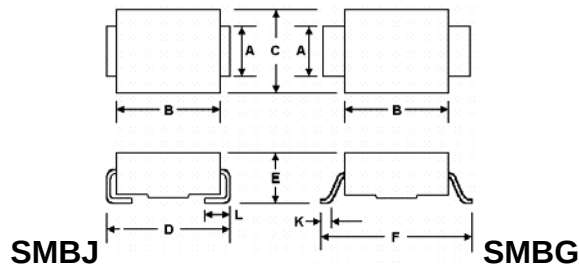
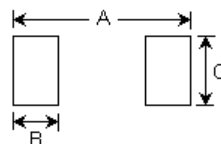


FIGURE 3 – Capacitance vs Zener Voltage

PACKAGE DIMENSIONS & PAD LAYOUT



	A	B	C	D	E	F	K	L
MIN	.077	.160	.130	.205	.077	.235	.015	.030
MAX	.083	.180	.155	.220	.104	.255	.030	.060
DIMENSIONS IN MILLIMETERS								
MIN	1.96	4.06	3.30	5.21	1.95	5.97	.381	.760
MAX	2.10	4.57	3.94	5.59	2.65	6.48	.762	1.520



	INCHES	mm
A	0.320	8.13
B	0.085	2.16
C	0.110	2.79
INCHES mm		
A	.260	6.60
B	.085	2.16
C	.110	2.79

SMBG

SMBJ