

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.
- For bi-directional indicate a C or CA suffix after the part number (i.e. SMLJ5.0C or SMLJ5.0CA)

MAXIMUM RATINGS

Rating	Value
Peak power dissipation	3000W at 10/1000 μ s (see fig. 1, 2 & 3)
T _{clamping} (0 V to V _(BR) min)	< 1x 10 ⁻¹² seconds
Forward surge rating	200 amps, 1/120 seconds @ 25°C(excluding bidirectional)
Operating and storage temperature range	-65° to 150°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Part number	Reverse stand-off voltage ⁽¹⁾	Breakdown voltage			Maximum clamping voltage	Peak pulse current	Maximum reverse leakage
		V _(BR) @ I _T					
		V _{WM}	MIN	MAX	I _T	VOLTS	I _{PP}
Modified "J" bend lead	VOLTS			mA		AMPS	μ A
SMLJ5.0A	5.0	6.40	7.00	10	9.2	326.0	1000
SMLJ6.0A	6.0	6.67	7.37	10	10.3	291.3	1000
SMLJ6.5A	6.5	7.22	7.98	10	11.2	267.9	500
SMLJ7.0A	7.0	7.78	8.60	10	12.0	250.0	200
SMLJ7.5A	7.5	8.33	9.21	1	12.9	232.6	100
SMLJ8.0A	8.0	8.89	9.83	1	13.6	220.6	50
SMLJ8.5A	8.5	9.44	10.4	1	14.4	208.4	25
SMLJ9.0A	9.0	10.0	11.1	1	15.4	194.8	10
SMLJ10A	10	11.1	12.3	1	17.0	176.4	5
SMLJ11A	11	12.2	13.5	1	18.2	164.8	5
SMLJ12A	12	13.3	14.7	1	19.9	150.6	5
SMLJ13A	13	14.4	15.9	1	21.5	139.4	5
SMLJ14A	14	15.6	17.2	1	23.2	129.4	5
SMLJ15A	15	16.7	18.5	1	24.4	123.0	5
SMLJ16A	16	17.8	19.7	1	26.0	115.4	5
SMLJ17A	17	18.9	20.9	1	27.6	106.6	5
SMLJ18A	18	20.0	22.1	1	29.2	102.8	5
SMLJ20A	20	22.2	24.5	1	32.4	92.6	5
SMLJ22A	22	24.4	26.9	1	35.5	84.4	5
SMLJ24A	24	26.7	29.5	1	38.9	77.2	5
SMLJ26A	26	28.9	31.9	1	42.1	71.2	5
SMLJ28A	28	31.1	34.4	1	45.4	66.0	5
SMLJ30A	30	33.3	36.8	1	48.4	62.0	5
SMLJ33A	33	36.7	40.6	1	53.3	56.2	5

SML SERIES

TRANSIENT ABSORPTION ZENER DIODES

Part number	Reverse stand-off voltage ⁽¹⁾	Breakdown voltage			Maximum clamping voltage @ I _{PP}	Peak pulse current I _{PP}	Maximum reverse leakage @ V _{WM}
		V _(BR) @ I _T		I _T			
	V _{WM} VOLTS	MIN	MAX	mA	VOLTS	AMPS	I _D μA
SMLJ36A	36	40.0	44.2	1	58.1	51.6	5
SMLJ40A	40	44.4	49.1	1	64.5	46.4	5
SMLJ43A	43	47.8	52.8	1	69.4	43.2	5
SMLJ45A	45	50.0	55.3	1	72.7	41.2	5
SMLJ48A	48	53.3	58.9	1	77.4	38.8	5
SMLJ51A	51	56.7	62.7	1	82.4	36.4	5
SMLJ54A	54	60.0	66.3	1	87.1	34.4	5
SMLJ58A	58	64.4	71.2	1	93.6	32.0	5
SMLJ60A	60	66.7	73.7	1	96.8	31.0	5
SMLJ64A	64	71.1	78.6	1	103.0	29.2	5
SMLJ70A	70	77.8	86.0	1	113.0	26.6	5
SMLJ75A	75	83.3	92.1	1	121.0	24.8	5
SMLJ78A	78	86.7	95.8	1	126.0	22.8	5
SMLJ85A	85	94.4	104.0	1	137.0	20.8	5
SMLJ90A	90	100	111	1	146.0	20.6	5
SMLJ100A	100	111	123	1	162.0	18.6	5
SMLJ110A	110	122	135	1	177.0	16.8	5
SMLJ120A	120	133	147	1	193.0	15.6	5
SMLJ130A	130	144	159	1	209.0	14.4	5
SMLJ150A	150	167	185	1	243.0	12.4	5
SMLJ160A	160	178	197	1	259.0	11.6	5
SMLJ170A	170	189	209	1	275.0	11.0	5

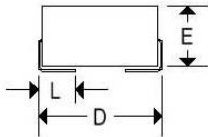
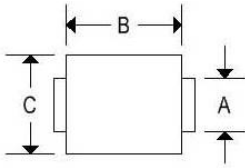
Note 1: Transient absorption zener diodes are normally selected according to the reverse stand off voltage which should be equal to or greater than the DC or continuous peak operating voltage level.

SML SERIES

TRANSIENT ABSORPTION ZENER DIODES

MECHANICAL CHARACTERISTICS

Case:	DO-214AB
Marking:	Body painted, alpha-numeric
Polarity:	Cathode band



	DO-214AB			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.108	0.128	2.743	3.250
B	0.260	0.280	6.600	7.110
C	0.220	0.245	5.590	6.220
D	0.305	0.320	7.750	8.130
E	0.079	0.103	2.007	2.616
L	0.030	0.060	0.760	1.520

SML SERIES

TRANSIENT ABSORPTION ZENER DIODES

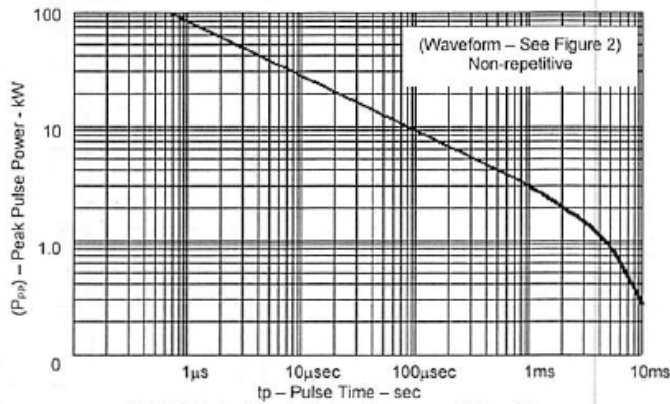


FIGURE 1 - Peak Pulse Power vs. Pulse Time

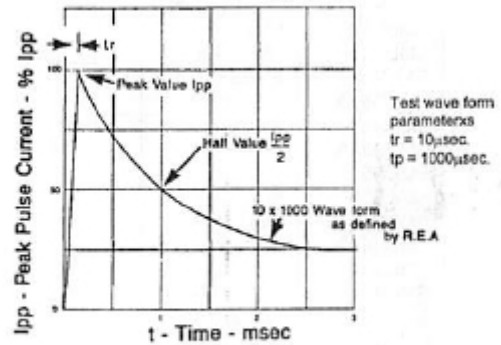


FIGURE 2 - PULSE WAVEFORM

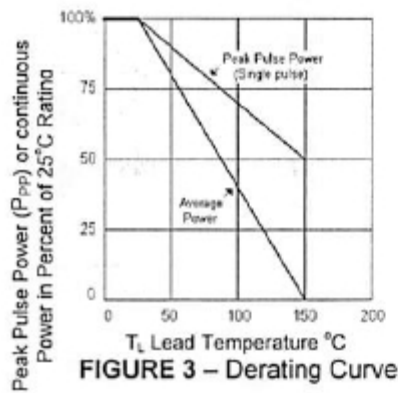


FIGURE 3 - Derating Curve

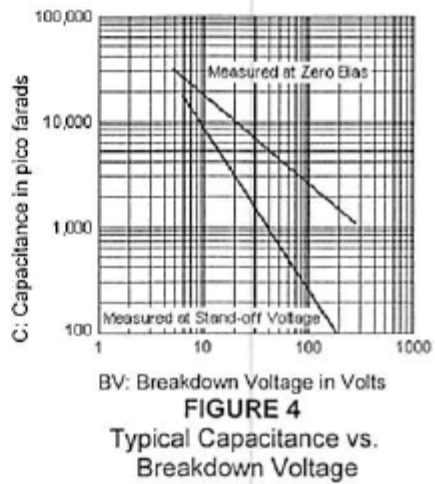


FIGURE 4
Typical Capacitance vs. Breakdown Voltage