



Surface Mount Transient Voltage Suppressor

200W Peak Power Pulse Voltage 5.0 to 170V

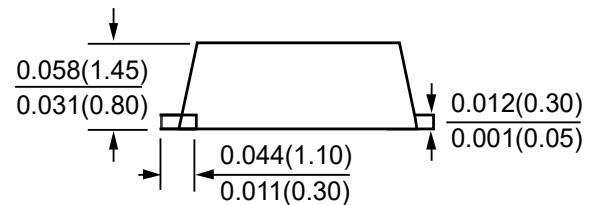
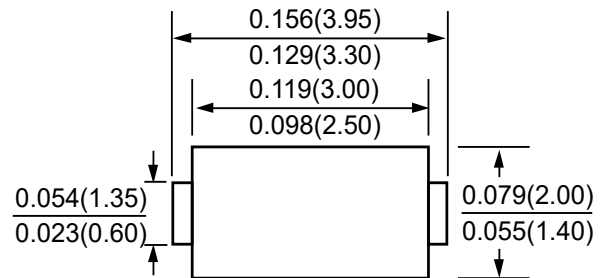


FEATURES

- Glass Passivated Chip
- Ultra Fast Switching for High Efficiency
- For Surface Mounted Applications
- Low Forward Voltage Drop and High Current Capability
- Low Reverse Leakage Current
- Plastic Material Has UL Flammability Classification 94V-0
- High Temperature Soldering : 260°C /10 Seconds at Terminals
- Pb Free Product at Available : 99% Sn Above Meet RoHS Environment Substance Directive Request
- AEC-Q101 qualified
- Uni-directional

SOD-123FL

Unit:inch(mm)



MECHANICAL DATA

- Case : Molded Plastic
- Polarity : Indicated by Cathode Band

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

For Capacitive load derate current by 20%.

Parameter	Symbol	Value	Unit
Peak Power Dissipation on 10/1000us Waveform (NOTE 1)	P_{PP}	200	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave (NOTE 2)	I_{FSM}	20	A
Peak Pulse Current on 10/1000us Waveform (NOTE 1)	I_{PP}	See Next Table	A
Operating and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C

NOTES :

1. Non-repetitive current pulse, per Fig.3 and derated above $T_A = 25^\circ\text{C}$ per Fig.2.
2. Measured on 8.3ms, single half sine-wave or equivalent square wave.

DEVICE CHARACTERISTICS

P2SMLJ Series-A

Part Number	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max Clamping Voltage	Peak Pulse Current	Marking Code
		$V_{BR@I_T}$						
	V_{RRM}	Min.	Max.	I_T	$I_R@V_{RWM}$	$V_C@I_{PP}$	I_{PP}	
	V	V	V	mA	uA	V	A	
200W Transient Voltage Suppressor								
P2SMLJ5.0A-A	5.0	6.40	7.00	10	400	9.2	21.7	HE
P2SMLJ6.0A-A	6.0	6.67	7.37	10	400	10.3	19.4	HG
P2SMLJ6.5A-A	6.5	7.22	7.98	10	250	11.2	17.9	HK
P2SMLJ7.0A-A	7.0	7.78	8.60	10	100	12.0	16.7	HM
P2SMLJ7.5A-A	7.5	8.33	9.21	1	50	12.9	15.5	HP
P2SMLJ8.0A-A	8.0	8.89	9.83	1	25	13.6	14.7	HR
P2SMLJ8.5A-A	8.5	9.44	10.40	1	10	14.4	13.9	HT
P2SMLJ9.0A-A	9.0	10.00	11.10	1	5	15.4	13.0	HV
P2SMLJ10A-A	10.0	11.10	12.30	1	2.5	17.0	11.8	HX
P2SMLJ11A-A	11.0	12.20	13.50	1	2.5	18.2	11.0	HZ
P2SMLJ12A-A	12.0	13.30	14.70	1	2.5	19.9	10.1	IE
P2SMLJ13A-A	13.0	14.40	15.90	1	1	21.5	9.3	IG
P2SMLJ14A-A	14.0	15.60	17.20	1	1	23.2	8.6	IK
P2SMLJ15A-A	15.0	16.70	18.50	1	1	24.4	8.2	IM
P2SMLJ16A-A	16.0	17.80	19.70	1	1	26.0	7.7	IP
P2SMLJ17A-A	17.0	18.90	20.90	1	1	27.6	7.2	IR
P2SMLJ18A-A	18.0	20.00	22.10	1	1	29.2	6.8	IT
P2SMLJ20A-A	20.0	22.20	24.50	1	1	32.4	6.2	IV
P2SMLJ22A-A	22.0	24.40	26.90	1	1	35.5	5.6	IX
P2SMLJ24A-A	24.0	26.70	29.50	1	1	38.9	5.1	IZ
P2SMLJ26A-A	26.0	28.90	31.90	1	1	42.1	4.8	JE
P2SMLJ28A-A	28.0	31.10	34.40	1	1	45.4	4.4	JG
P2SMLJ30A-A	30.0	33.30	36.80	1	1	48.4	4.0	JK
P2SMLJ33A-A	33.0	36.70	40.60	1	1	53.3	3.8	JM
P2SMLJ36A-A	36.0	40.00	44.20	1	1	58.1	3.4	JP
P2SMLJ40A-A	40.0	44.40	49.10	1	1	64.5	3.1	JR
P2SMLJ43A-A	43.0	47.80	52.80	1	1	69.4	2.9	JT
P2SMLJ45A-A	45.0	50.00	55.30	1	1	72.7	2.8	JV
P2SMLJ48A-A	48.0	53.30	58.90	1	1	77.4	2.6	JX
P2SMLJ51A-A	51.0	56.70	62.70	1	1	82.4	2.4	JZ
P2SMLJ54A-A	54.0	60.00	66.30	1	1	87.1	2.3	RE
P2SMLJ58A-A	58.0	64.40	71.20	1	1	93.6	2.1	RG
P2SMLJ60A-A	60.0	66.70	73.70	1	1	96.8	1.8	RK
P2SMLJ64A-A	64.0	71.10	78.60	1	1	103.0	1.7	RM
P2SMLJ70A-A	70.0	77.80	86.00	1	1	113.0	1.5	RP

DEVICE CHARACTERISTICS

P2SMLJ Series-A

Part Number	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Reverse Leakage	Max Clamping Voltage	Peak Pulse Current	Marking Code
		$V_{BR}@I_T$						
	V_{RRM}	Min.	Max.	I_T	$I_R@V_{RWM}$	$V_C@I_{PP}$	I_{PP}	
	V	V	V	mA	uA	V	A	
200W Transient Voltage Suppressor								
P2SMLJ75A-A	75.0	83.30	92.10	1	1	121.0	1.4	RR
P2SMLJ78A-A	78.0	86.70	95.80	1	1	126.0	1.4	RT
P2SMLJ85A-A	85.0	94.40	104.00	1	1	137.0	1.3	RV
P2SMLJ90A-A	90.0	100.00	111.00	1	1	146.0	1.2	RX
P2SMLJ100A-A	100.0	111.00	123.00	1	1	162.0	1.1	RZ
P2SMLJ110A-A	110.0	122.00	135.00	1	1	177.0	1.0	SE
P2SMLJ120A-A	120.0	133.00	147.00	1	1	193.0	0.9	SG
P2SMLJ130A-A	130.0	144.00	159.00	1	1	209.0	0.8	SK
P2SMLJ150A-A	150.0	167.00	185.00	1	1	243.0	0.7	SM
P2SMLJ160A-A	160.0	178.00	197.00	1	1	259.0	0.7	SP
P2SMLJ170A-A	170.0	189.00	209.00	1	1	275.0	0.6	SR

NOTES :

3. The available parts are 'A' type only, the parts without A(V_{BR} is $\pm 10\%$) is not available.

DEVICE CHARACTERISTICS

P2SMLJ Series-A

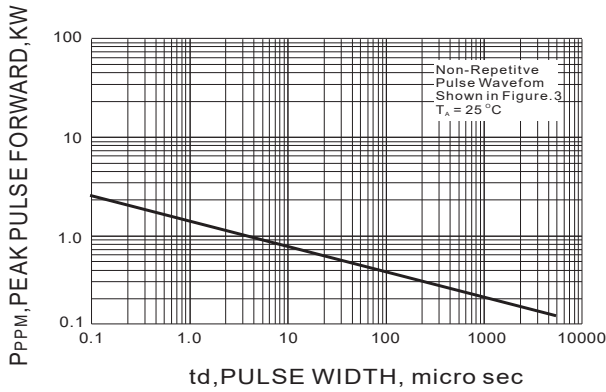


Fig.1 PEAK PULSE POWER RATING CURVE

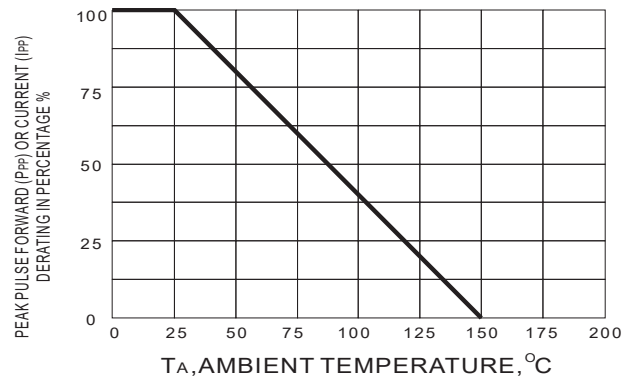


Fig.2 DERATING CURVE

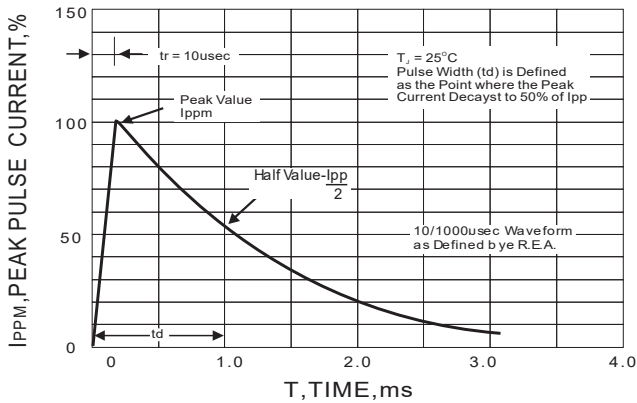


Fig.3 PULSE WAVE FORM

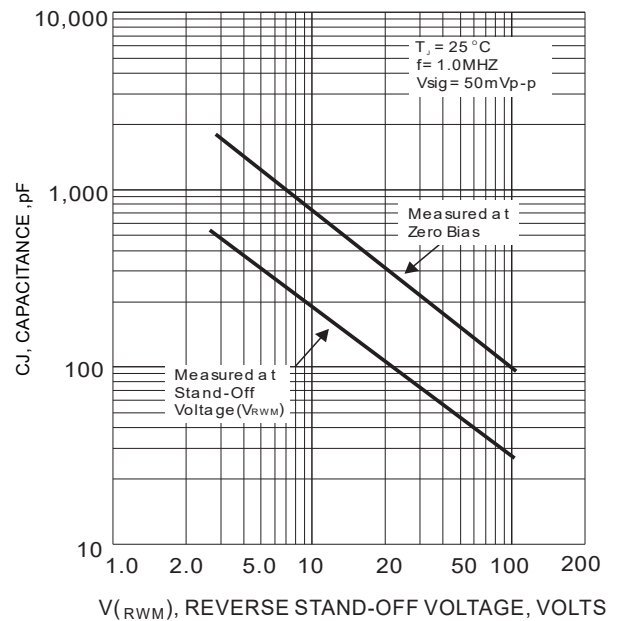


Fig.4 TYPICAL CAPACITANCE

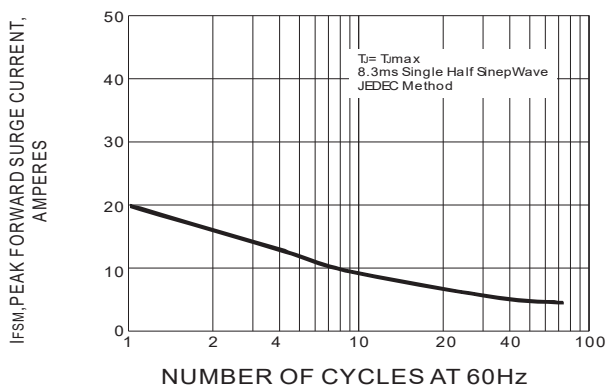


Fig.5 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT