

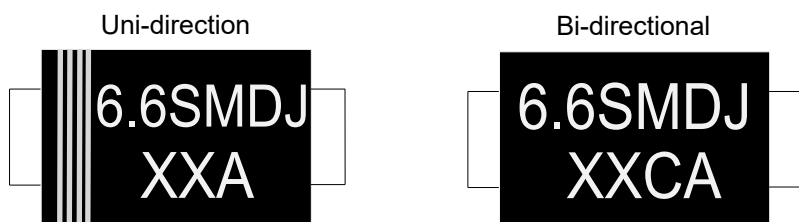
Feature

- 6600W peak pulse power capability with a 10/1000us waveform
- Excellent clamping capability
- Low power loss, high efficiency

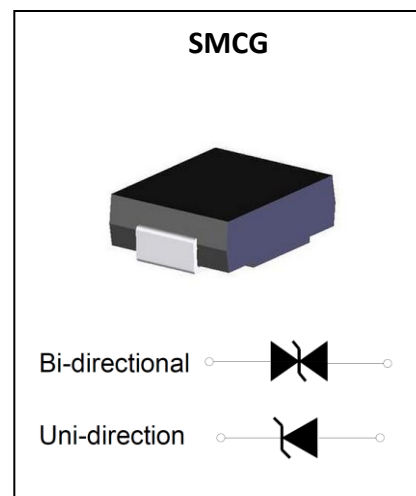
Applications

- Protect sensitive circuit from damage by high voltage transients
- Lighting, ESD transient voltage protection of IC, system
- Inductive switching load protection of IC, system
- Electrical Fast Transient Immunity protection of IC, system

Marking



XX: From 11 To 60



Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Power Dissipation With a 10/1000 us Waveform	P_{PP}	6600	W
Peak Pulse Current With a 10/1000 us Waveform ¹⁾	I_{PP}	See Next Table	A
Power Dissipation, On Infinite Heat Sink at $T_L=75^{\circ}\text{C}$	P_D	6.5	W
Peak Forward Surge Current, 8.3 ms Single Half Sinewave Unidirectional Only	I_{FSM}	300	A
Maximum Instantaneous Forward Voltage at 100A for Unidirectional Only ²⁾	V_F	3.0/5.0	V
Junction Temperature	T_J	-55 ~ +150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$
Thermal Resistance	$R_{\theta JL}$	15	$^{\circ}\text{C/W}$
	$R_{\theta JA}$	75	$^{\circ}\text{C/W}$
	$R_{\theta JC}$	10	$^{\circ}\text{C/W}$

1) Non-repetitive current pulse, per Fig. 3 and derated above $T_A=25^{\circ}\text{C}$ Per Fig.2.

2) $V_F<3.5\text{V}$ for devices of $V_{BR}<200\text{V}$ and $V_F<5.0\text{V}$ for devices of $V_{BR}>201\text{V}$.

Electrical Characteristics (T_A=25°C unless otherwise specified)

Part Number		Reverse Stand-off Voltage	Breakdown Voltage V _{BR} @ I _T		Test Current	Max. Clamping Voltage @ I _{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V _{RWM}
UNI-POLAR	BI-POLAR	V _{RWM} (V)	Min.(V)	Max.(V)	I _T (mA)	V _{C MAX.} (V)	I _{PP} (A)	I _R (uA)
6.6SMDJ11A	6.6SMDJ11CA	11.0	12.20	13.50	10	18.2	362.6	800
6.6SMDJ12A	6.6SMDJ12CA	12.0	13.30	14.70	10	19.9	331.7	800
6.6SMDJ13A	6.6SMDJ13CA	13.0	14.40	15.90	10	21.5	307.0	500
6.6SMDJ14A	6.6SMDJ14CA	14.0	15.60	17.20	10	23.2	284.5	200
6.6SMDJ15A	6.6SMDJ15CA	15.0	16.70	18.50	1	24.4	270.5	100
6.6SMDJ16A	6.6SMDJ16CA	16.0	17.80	19.70	1	26.0	253.8	50
6.6SMDJ17A	6.6SMDJ17CA	17.0	18.90	20.90	1	27.6	239.2	20
6.6SMDJ18A	6.6SMDJ18CA	18.0	20.00	22.10	1	29.2	226.0	10
6.6SMDJ20A	6.6SMDJ20CA	20.0	22.20	24.50	1	32.4	203.7	5
6.6SMDJ22A	6.6SMDJ22CA	22.0	24.40	26.90	1	35.5	185.9	5
6.6SMDJ24A	6.6SMDJ24CA	24.0	26.70	29.50	1	38.9	169.6	5
6.6SMDJ26A	6.6SMDJ26CA	26.0	28.90	31.90	1	42.1	156.8	5
6.6SMDJ28A	6.6SMDJ28CA	28.0	31.10	34.40	1	45.4	145.3	5
6.6SMDJ30A	6.6SMDJ30CA	30.0	33.30	36.80	1	48.4	136.4	5
6.6SMDJ33A	6.6SMDJ33CA	33.0	36.70	40.60	1	53.3	123.8	5
6.6SMDJ36A	6.6SMDJ36CA	36.0	40.00	44.20	1	58.1	113.7	5
6.6SMDJ40A	6.6SMDJ40CA	40.0	44.40	49.10	1	64.5	102.3	5
6.6SMDJ43A	6.6SMDJ43CA	43.0	47.80	52.80	1	69.4	95.0	5
6.6SMDJ45A	6.6SMDJ45CA	45.0	50.00	55.30	1	72.7	90.8	5
6.6SMDJ48A	6.6SMDJ48CA	48.0	53.30	58.90	1	77.4	85.3	5
6.6SMDJ51A	6.6SMDJ51CA	51.0	56.70	62.70	1	82.4	80.1	5
6.6SMDJ54A	6.6SMDJ54CA	54.0	60.00	66.30	1	87.1	75.8	5
6.6SMDJ58A	6.6SMDJ58CA	58.0	64.40	71.20	1	93.6	70.5	5
6.6SMDJ60A	6.6SMDJ60CA	60.0	66.70	73.70	1	96.8	68.2	5

Typical Characteristics

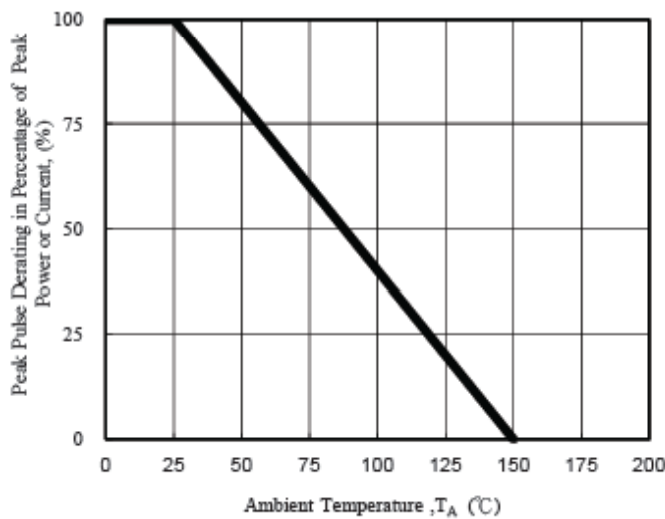


Fig. 1 - Pulse Derating Curve

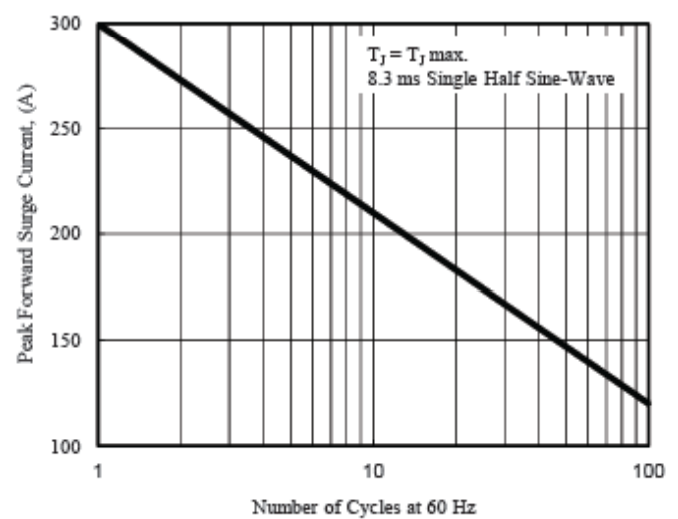


Fig. 2 - Maximum Non-Repetitive Surge Current

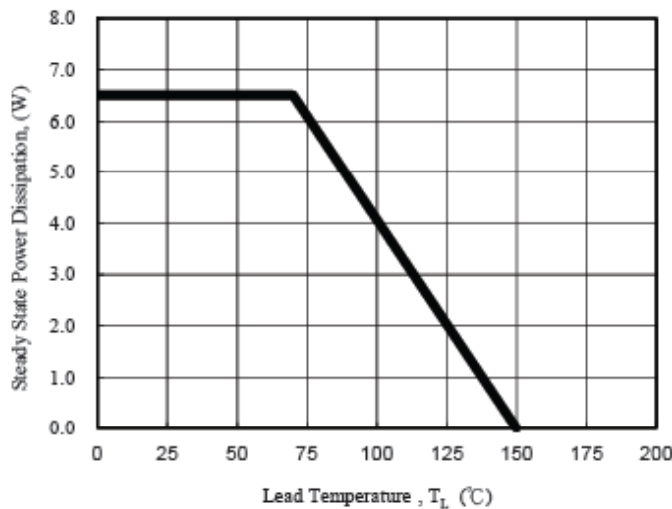


Fig. 3 - Steady State Power Derating Curve

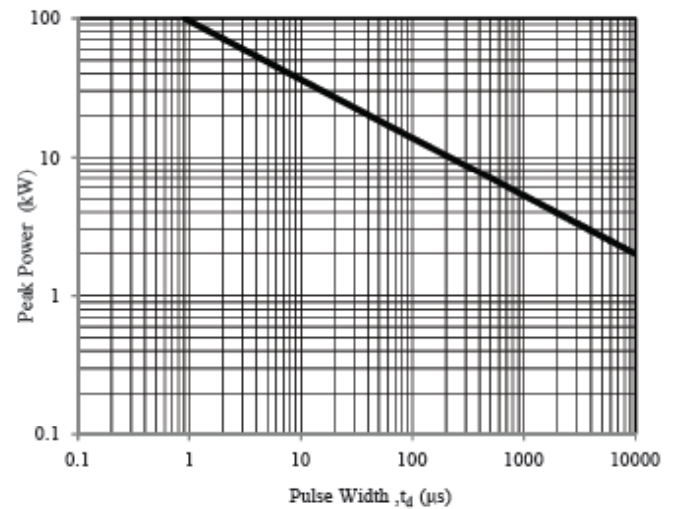


Fig. 4 - Peak Pulse Power Rating Curve

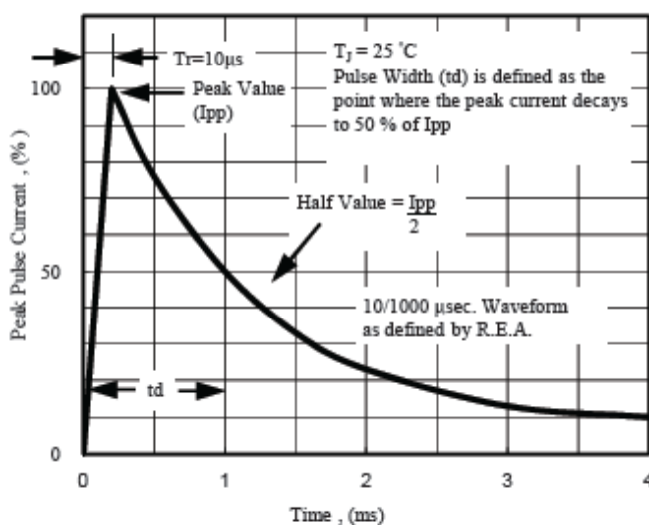


Fig. 5 - Pulse Waveform

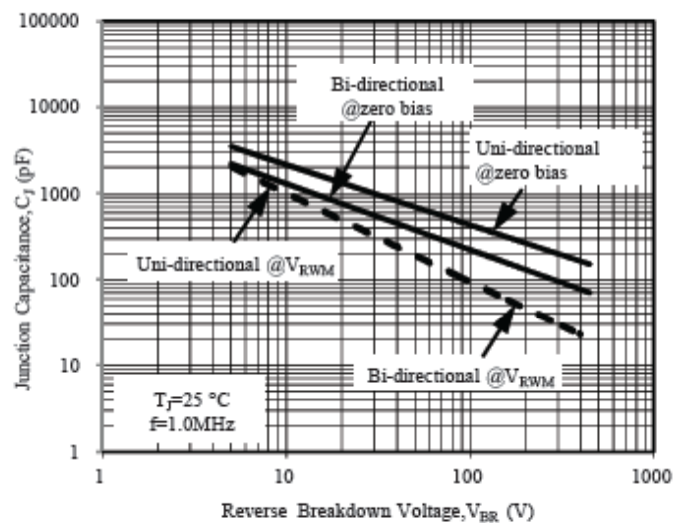
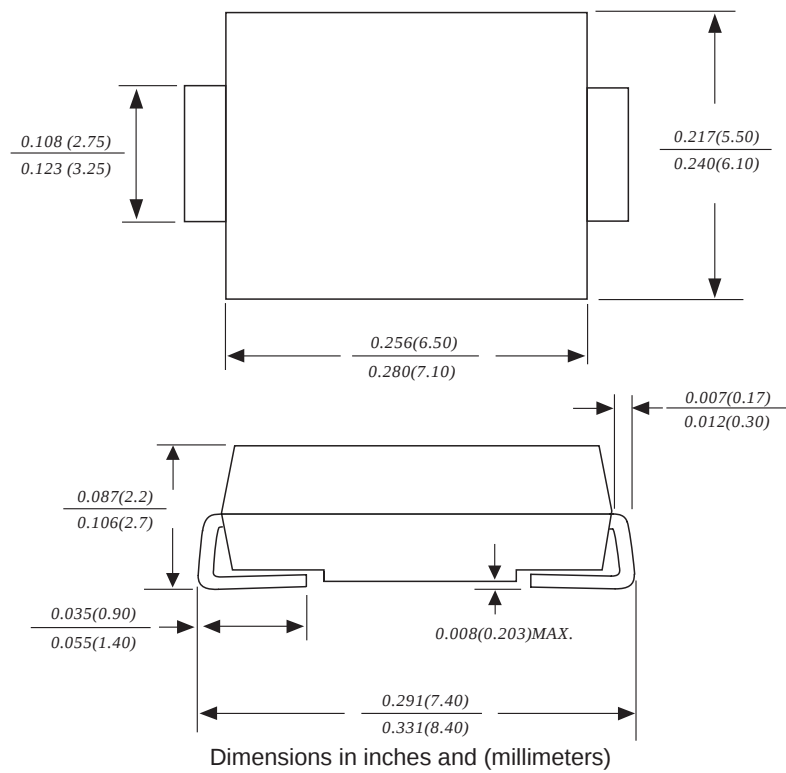


Fig. 6 - Typical Junction Capacitance

SMCG Package Outline Dimensions



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