

**ELECTRICAL CHARACTERISTICS** ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

TYPE ⁽¹⁾	DEVICE MARKING CODE		BREAKDOWN VOLTAGE V_{BR} AT I_T ⁽²⁾ (V)		TEST CURRENT I_T (mA)	STAND-OFF VOLTAGE V_{RM} (V)	LEAKAGE CURRENT I_{RM} AT V_{RM} (μA)	CLAMPING VOLTAGE V_C AT I_{PPM} 10/1000 μs		CLAMPING VOLTAGE V_C AT I_{PPM} 8/20 μs		α_T MAX. $10^{-4}/^\circ\text{C}$
	UNI	BI	MIN.	MAX.				(V)	(A)	(V)	(A)	
SM6T6V8A	KE7	KE7	6.45	7.14	10	5.80	1000	10.5	57.0	13.4	298	5.7
SM6T7V5A	KK7	AK7	7.13	7.88	10	6.40	500	11.3	53.0	14.5	276	6.1
SM6T10A	KT7	AT7	9.50	10.5	1.0	8.55	10.0	14.5	41.0	18.6	215	7.3
SM6T12A	KX7	AX7	11.4	12.6	1.0	10.2	5.0	16.7	36.0	21.7	184	7.8
SM6T15A	LG7	LG7	14.3	15.8	1.0	12.8	1.0	21.2	28.0	27.2	147	8.4
SM6T18A	LM7	BM7	17.1	18.9	1.0	15.3	1.0	25.2	24.0	32.5	123	8.8
SM6T22A	LT7	BT7	20.9	23.1	1.0	18.8	1.0	30.6	20.0	39.3	102	9.2
SM6T24A	LV7	LV7	22.8	25.2	1.0	20.5	1.0	33.2	18.0	42.8	93	9.4
SM6T27A	LX7	BX7	25.7	28.4	1.0	23.1	1.0	37.5	16.0	48.3	83	9.6
SM6T30A	ME7	CE7	28.5	31.5	1.0	25.6	1.0	41.5	14.5	53.5	75	9.7
SM6T33A	MG7	MG7	31.4	34.7	1.0	28.2	1.0	45.7	13.1	59	68	9.8
SM6T36A	MK7	CK7	34.2	37.8	1.0	30.8	1.0	49.9	12.0	64.3	62	9.9
SM6T39A	MM7	CM7	37.1	41.0	1.0	33.3	1.0	53.9	11.1	69.7	57	10.0
SM6T68A	NG7	NG7	64.6	71.4	1.0	58.1	1.0	92.0	6.50	121	33	10.4
SM6T100A	NV7	NV7	95.0	105	1.0	85.5	1.0	137	4.40	178	22.5	10.6
SM6T150A	PK7	PK7	143	158	1.0	128	1.0	207	2.90	265	15	10.8
SM6T200A	PR7	PR7	190	210	1.0	171	1.0	274	2.20	353	11.3	10.8
SM6T220A	PR8	PR8	209	231	1.0	188	1.0	328	2.00	388	10.3	10.8

Notes

- (1) For bidirectional devices add suffix "CA"
(2) V_{BR} measured after I_T applied for 300 μs square wave pulse
(3) For bi-polar devices with $V_{RM} = 10\text{ V}$ or under, the I_{RM} limit is doubled

THERMAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Typical thermal resistance, junction to ambient air ⁽¹⁾	$R_{\theta JA}$	100	$^\circ\text{C}/\text{W}$
Typical thermal resistance, junction to lead	$R_{\theta JL}$	20	

Note

- (1) Mounted on minimum recommended pad layout

ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
SM6T10A-E3/52	0.096	52	750	7" diameter plastic tape and reel
SM6T10A-M3/52				
SM6T10A-E3/5B	0.096	5B	3200	13" diameter plastic tape and reel
SM6T10A-M3/5B				
SM6T10AHE3_A/H ⁽¹⁾	0.096	H	750	7" diameter plastic tape and reel
SM6T10AHM3_A/H ⁽¹⁾				
SM6T10AHE3_A/I ⁽¹⁾	0.096	I	3200	13" diameter plastic tape and reel
SM6T10AHM3_A/I ⁽¹⁾				

Note

- (1) AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

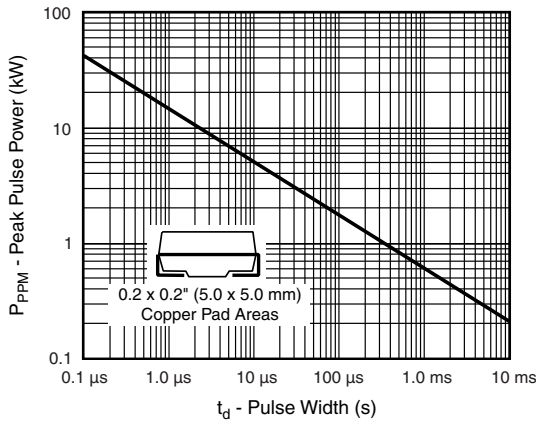


Fig. 1 - Peak Pulse Power Rating Curve

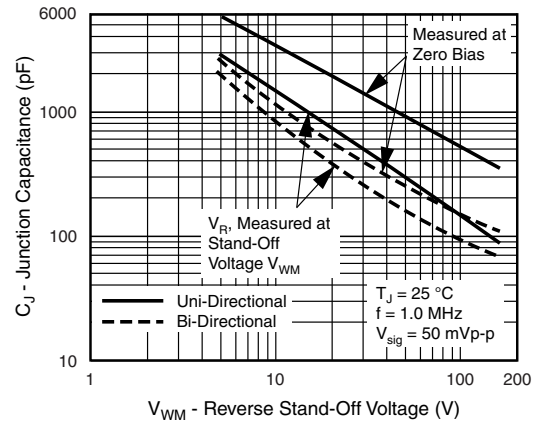


Fig. 4 - Typical Junction Capacitance

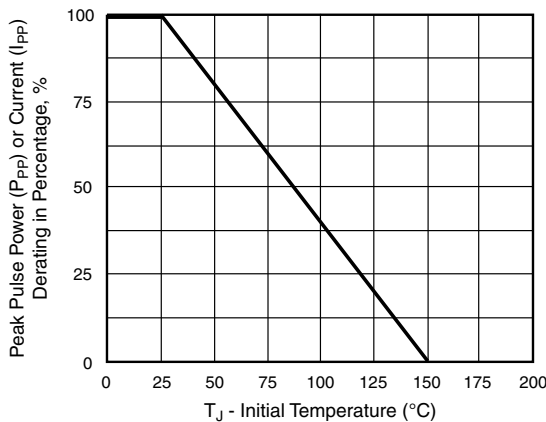


Fig. 2 - Pulse Power or Current vs. Initial Junction Temperature

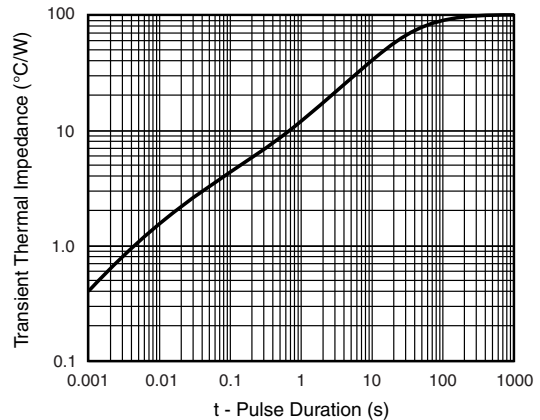


Fig. 5 - Typical Transient Thermal Impedance

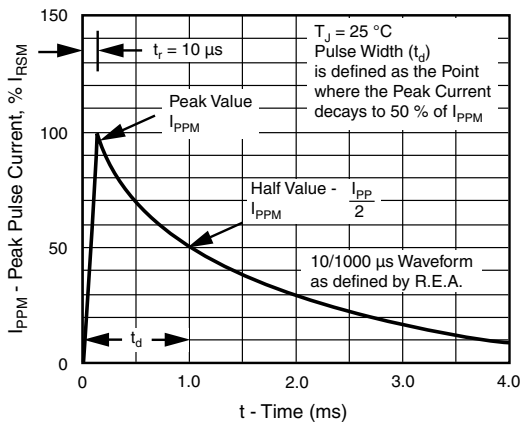


Fig. 3 - Pulse Waveform

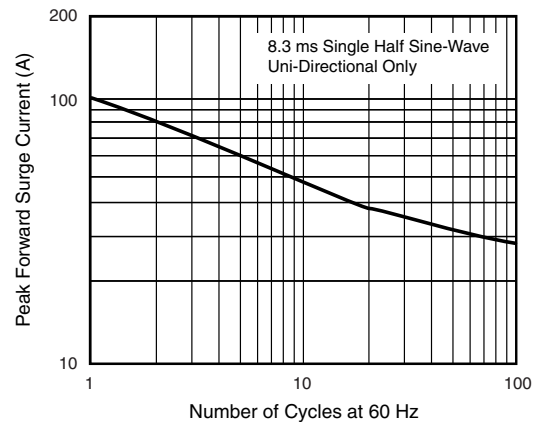
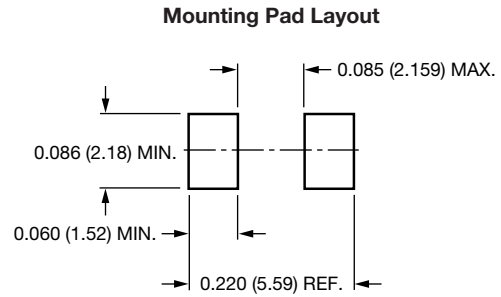
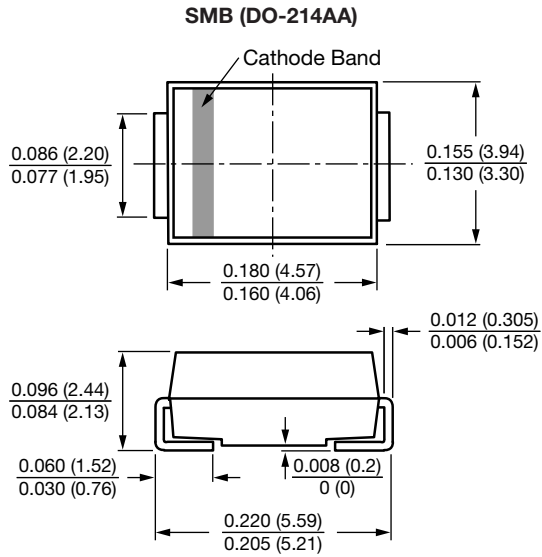


Fig. 6 - Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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