

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

DEVICE TYPE	DEVICE MARKING CODE	BREAKDOWN VOLTAGE $V_{BR}^{(1)}$ AT $I_T$ (V)		TEST CURRENT $I_T$ (mA)	STAND-OFF VOLTAGE $V_{WM}$ (V)	MAXIMUM REVERSE LEAKAGE AT $V_{WM}$ $I_R$ ( $\mu\text{A}$ )	MAXIMUM REVERSE LEAKAGE AT $V_{WM}$ $T_J = 150^\circ\text{C}$ $I_D$ ( $\mu\text{A}$ )	MAXIMUM PEAK PULSE SURGE CURRENT $I_{PPM}^{(2)}$ (A)	MAXIMUM CLAMPING VOLTAGE AT $I_{PPM}$ $V_C$ (V)
		MIN.	MAX.						
TPSMC6.8	DDP	6.12	7.48	10	5.5	1000	10000	139	10.8
TPSMC6.8A	DEP	6.45	7.14	10	5.8	1000	10000	143	10.5
TPSMC7.5	DFP	6.75	8.25	10	6.05	500	5000	128	11.7
TPSMC7.5A	DGP	7.13	7.88	10	6.4	500	5000	133	11.3
TPSMC8.2	DHP	7.38	9.02	10	6.63	200	2000	120	12.5
TPSMC8.2A	DKP	7.79	8.61	10	7.02	200	2000	124	12.1
TPSMC9.1	DLP	8.19	10	1	7.37	50	500	109	13.8
TPSMC9.1A	DMP	8.65	9.55	1	7.78	50	500	112	13.4
TPSMC10	DNP	9	11	1	8.1	20	200	100	15
TPSMC10A	DPP	9.5	10.5	1	8.55	20	200	103	14.5
TPSMC11	DQP	9.9	12.1	1	8.92	5	50	92.6	16.2
TPSMC11A	DRP	10.5	11.6	1	9.4	5	50	96.2	15.6
TPSMC12	DSP	10.8	13.2	1	9.72	2	10	86.7	17.3
TPSMC12A	DTP	11.4	12.6	1	10.2	2	10	89.8	16.7
TPSMC13	DUP	11.7	14.3	1	10.5	2	10	78.9	19
TPSMC13A	DVP	12.4	13.7	1	11.1	2	10	82.4	18.2
TPSMC15	DWP	13.5	16.5	1	12.1	1	10	68.2	22
TPSMC15A	DXP	14.3	15.8	1	12.8	1	10	70.8	21.2
TPSMC16	DYP	14.4	17.6	1	12.9	1	10	63.8	23.5
TPSMC16A	DZP	15.2	16.8	1	13.6	1	10	66.7	22.5
TPSMC18	EDP	16.2	19.8	1	14.5	1	10	56.6	26.5
TPSMC18A	EEP	17.1	18.9	1	15.3	1	10	59.5	25.2
TPSMC20	EFP	18	22	1	16.2	1	10	51.5	29.1
TPSMC20A	EGP	19	21	1	17.1	1	10	54.2	27.7
TPSMC22	EHP	19.8	24.2	1	17.8	1	10	47	31.9
TPSMC22A	EKP	20.9	23.1	1	18.8	1	10	49	30.6
TPSMC24	ELP	21.6	26.4	1	19.4	1	10	43.2	34.7
TPSMC24A	EMP	22.8	25.2	1	20.5	1	10	45.2	33.2
TPSMC27	ENP	24.3	29.7	1	21.8	1	10	38.4	39.1
TPSMC27A	EPP	25.7	28.4	1	23.1	1	10	40	37.5
TPSMC30	EQP	27	33	1	24.3	1	10	34.5	43.5
TPSMC30A	ERP	28.5	31.5	1	25.6	1	10	36.2	41.4
TPSMC33	ESP	29.7	36.3	1	26.8	1	10	31.4	47.7
TPSMC33A	ETP	31.4	34.7	1	28.2	1	10	32.8	45.7
TPSMC36	EUP	32.4	39.6	1	29.1	1	15	28.8	52
TPSMC36A	EVP	34.2	37.8	1	30.8	1	15	30.1	49.9
TPSMC39	EWP	35.1	42.9	1	31.6	1	15	26.6	56.4
TPSMC39A	EXP	37.1	41	1	33.3	1	15	27.8	53.9
TPSMC43	EYP	38.7	47.3	1	34.8	1	20	24.2	61.9
TPSMC43A	EZP	40.9	45.2	1	36.8	1	20	25.3	59.3
TPSMC47	FDP	42.3	51.7	1	38.1	1	20	22.1	67.8
TPSMC47A	FEP	44.7	49.4	1	40.2	1	20	23.1	64.8

**Notes**(1)  $V_{BR}$  measured after  $I_T$  applied for 300  $\mu\text{s}$ ,  $I_T$  = square wave pulse or equivalent

(2) Surge current waveform per fig. 3 and derated per fig. 2

(3) All terms and symbols are consistent with ANSI/IEEE C62.35

ORDERING INFORMATION (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
TPSMC6.8AHE3/57T <sup>(1)</sup>	0.211	57T	850	7" diameter plastic tape and reel
TPSMC6.8AHE3/9AT <sup>(1)</sup>	0.211	9AT	3500	13" diameter plastic tape and reel
TPSMC6.8AHE3_A/H <sup>(1)</sup>	0.211	H	850	7" diameter plastic tape and reel
TPSMC6.8AHE3_A/I <sup>(1)</sup>	0.211	I	3500	13" diameter plastic tape and reel

**Note**
<sup>(1)</sup> AEC-Q101 qualified

**RATINGS AND CHARACTERISTICS CURVES**

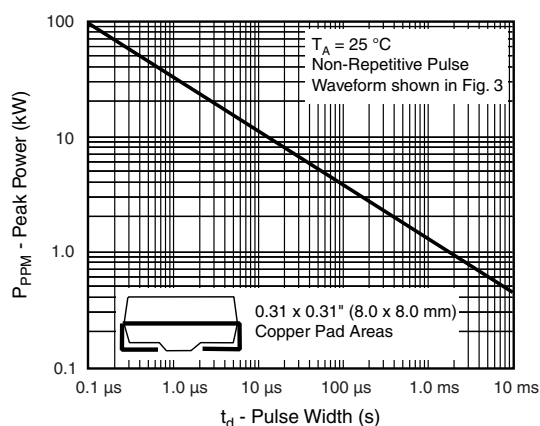
( $T_A = 25^\circ\text{C}$  unless otherwise noted)


Fig. 1 - Peak Pulse Power Rating Curve

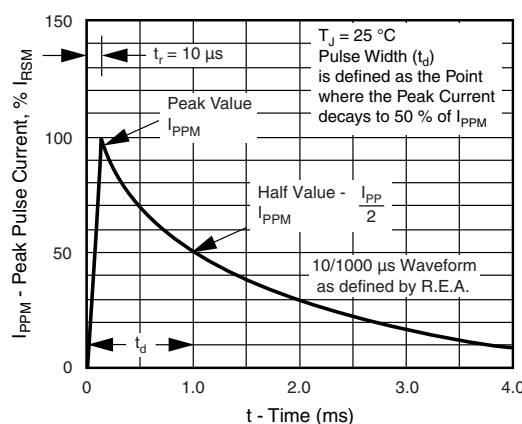


Fig. 3 - Pulse Waveform

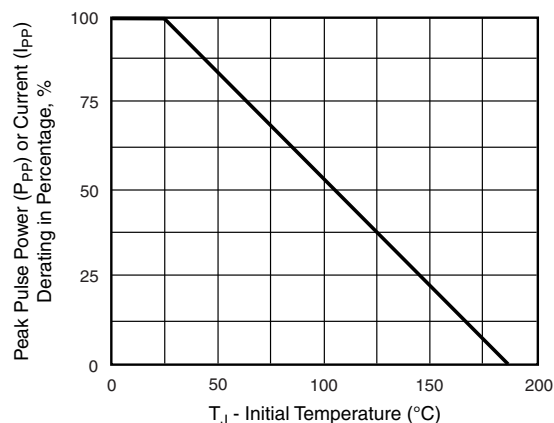


Fig. 2 - Pulse Power or Current vs. Initial Junction Temperature

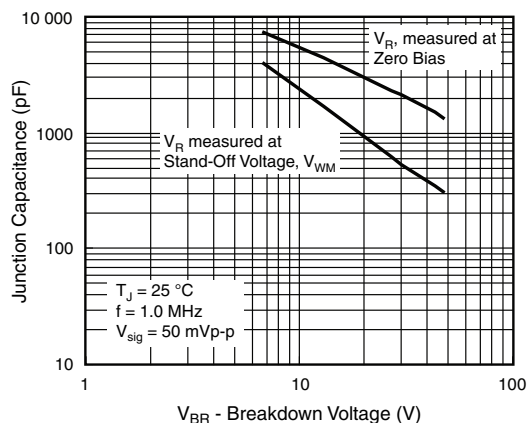


Fig. 4 - Typical Junction Capacitance

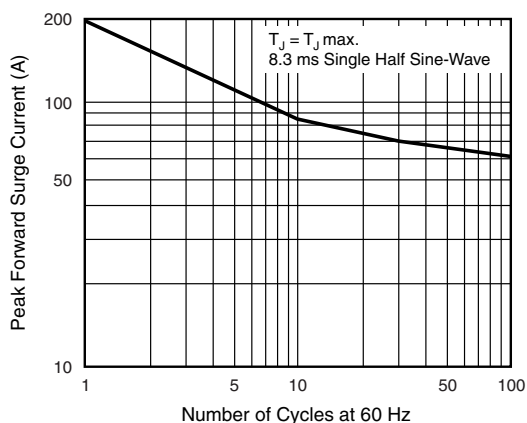
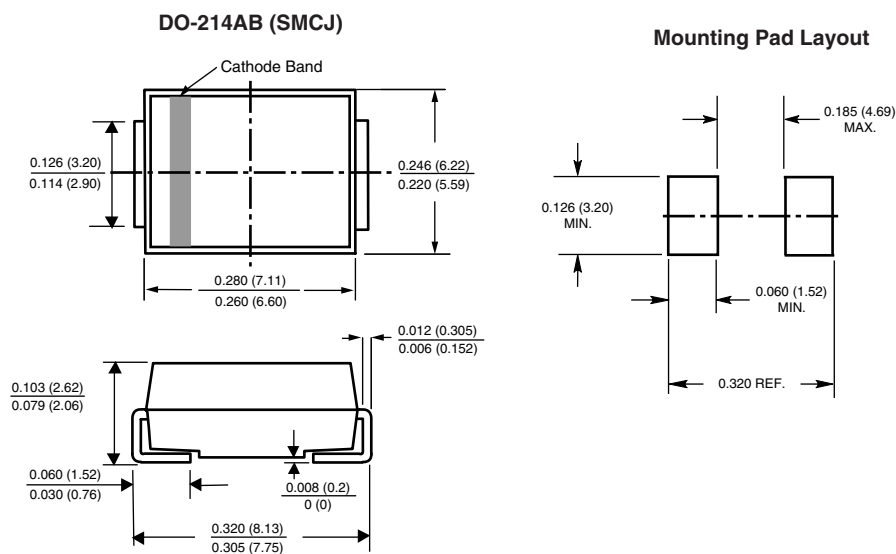


Fig. 5 - Maximum Non-Repetitive/Peak Forward Surge Current

### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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