ELECTRICAL CHARACTERISTICS (T_A = 25 °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 (µA)	MAXIMUM REVERSE LEAKAGE AT V_{WM} T_J = 150 °C I_D (µA)	MAXIMUM PEAK PULSE SURGE CURRENT I_{PPM} (2) (A)	MAXIMUM CLAMPING VOLTAGE AT I_{PPM} V_C (V)	TYPICAL TEMP. COEFFICIENT OF V_{BR} (3) αT (%/°C)
		MIN.	NOM.	MAX.							
TPSMC6.8A	DEP	6.45	6.80	7.14	10	5.80	1000	10 000	143	10.5	0.047
TPSMC7.5A	DGP	7.13	7.50	7.88	10	6.40	500	5000	133	11.3	0.052
TPSMC8.2A	DKP	7.79	8.20	8.61	10	7.02	200	2000	124	12.1	0.056
TPSMC9.1A	DMP	8.65	9.10	9.55	1	7.78	50	500	112	13.4	0.060
TPSMC10A	DPP	9.5	10.0	10.5	1	8.55	20	200	103	14.5	0.064
TPSMC11A	DRP	10.5	11.0	11.6	1	9.40	5.0	50	96.2	15.6	0.067
TPSMC12A	DTP	11.4	12.0	12.6	1	10.2	2.0	10	89.8	16.7	0.070
TPSMC13A	DVP	12.4	13.0	13.7	1	11.1	2.0	10	82.4	18.2	0.072
TPSMC15A	DXP	14.3	15.0	15.8	1	12.8	1.0	10	70.8	21.2	0.076
TPSMC16A	DZP	15.2	16.0	16.8	1	13.6	1.0	10	66.7	22.5	0.078
TPSMC18A	EEP	17.1	18.0	18.9	1	15.3	1.0	10	59.5	25.2	0.080
TPSMC20A	EGP	19.0	20.0	21.0	1	17.1	1.0	10	54.2	27.7	0.082
TPSMC22A	EKP	20.9	22.0	23.1	1	18.8	1.0	10	49.0	30.6	0.084
TPSMC24A	EMP	22.8	24.0	25.2	1	20.5	1.0	10	45.2	33.2	0.085
TPSMC27A	EPP	25.7	27.0	28.4	1	23.1	1.0	10	40.0	37.5	0.087
TPSMC30A	ERP	28.5	30.0	31.5	1	25.6	1.0	10	36.2	41.4	0.088
TPSMC33A	ETP	31.4	33.0	34.7	1	28.2	1.0	10	32.8	45.7	0.089
TPSMC36A	EVP	34.2	36.0	37.8	1	30.8	1.0	15	30.1	49.9	0.090
TPSMC39A	EXP	37.1	39.0	41.0	1	33.3	1.0	15	27.8	53.9	0.091
TPSMC43A	EZP	40.9	43.0	45.2	1	36.8	1.0	20	25.3	59.3	0.092
TPSMC47A	FEP	44.7	47.0	49.4	1	40.2	1.0	20	23.1	64.8	0.092

Notes

(1) V_{BR} measured after I_T applied for 300 µs, I_T = square wave pulse or equivalent
(2) Surge current waveform per fig. 3 and derated per fig. 2
(3) To calculate V_{BR} vs. junction temperature, use the following formula: V_{BR} at T_J = V_{BR} at 25 °C x (1 + αT x (T_J - 25))
(4) 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_B/H (1)	0.211	H	850	7" diameter plastic tape and reel
TPSMC6.8AHE3_B/I (1)	0.211	I	3500	13" diameter plastic tape and reel
TPSMC6.8AHM3_B/H (1)	0.211	H	850	7" diameter plastic tape and reel
TPSMC6.8AHM3_B/I (1)	0.211	I	3500	13" diameter plastic tape and reel

Note

(1) AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

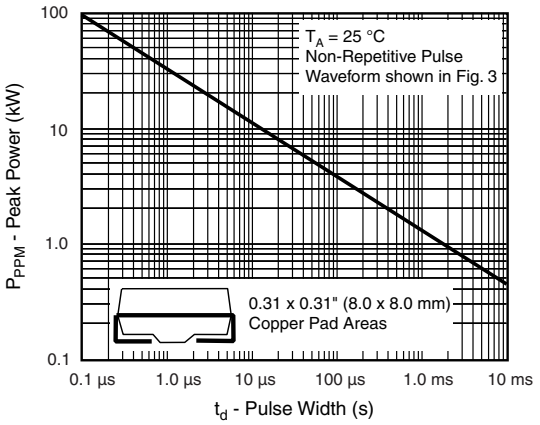


Fig. 1 - Peak Pulse Power Rating Curve

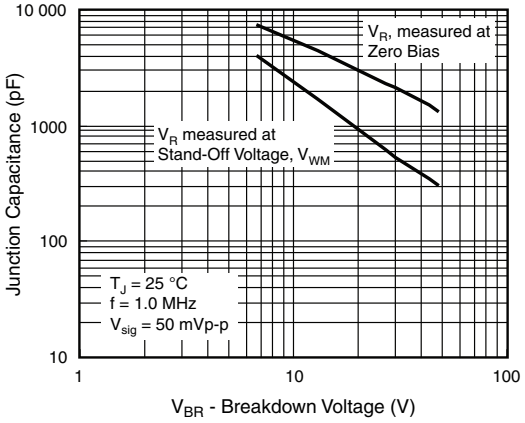


Fig. 4 - Typical Junction Capacitance

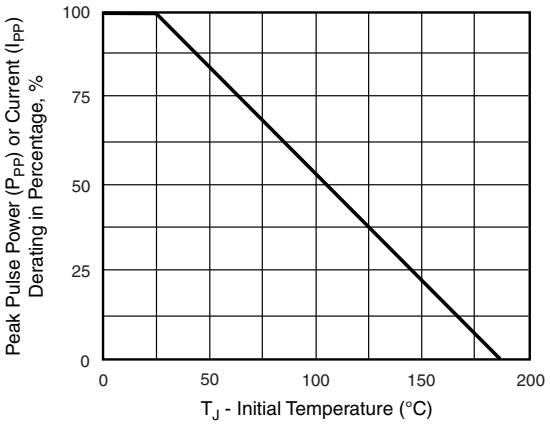


Fig. 2 - Pulse Power or Current vs. Initial Junction Temperature

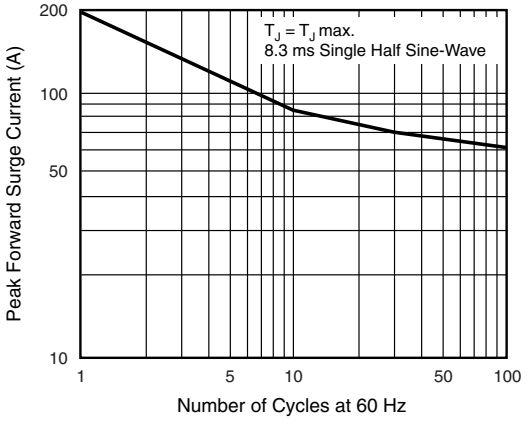


Fig. 5 - Maximum Non-Repetitive Peak Forward Surge Current

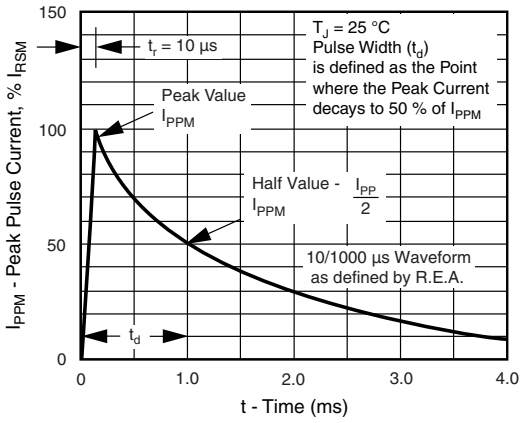
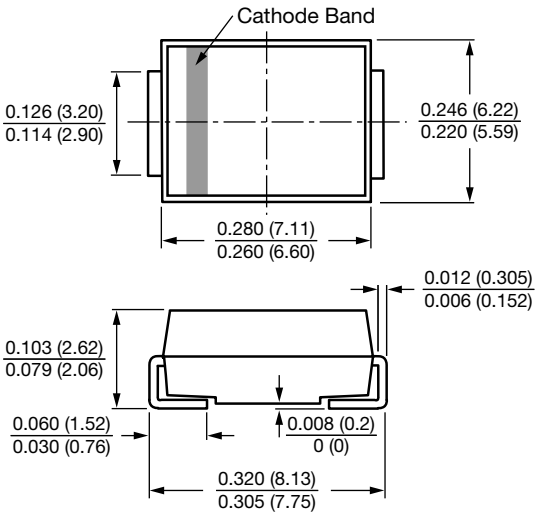


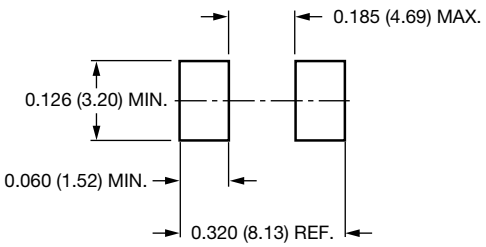
Fig. 3 - Pulse Waveform

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

SMC (DO-214AB)



Mounting Pad Layout



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