

GPP TRANSIENT VOLTAGE SUPPRESSOR
3000 WATT PEAK POWER 7.5 WATTS STEADY STATE

FEATURES

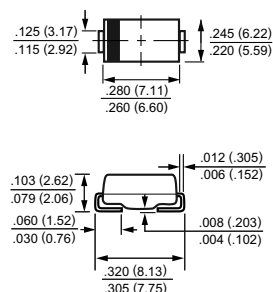
- * Plastic package has underwriters laboratory
- * Glass passivated chip construction
- * 3000 watt surge capability at 1ms
- * Excellent clamping capability
- * Low zener impedance
- * Fast response time
- * P/N suffix V means AEC-Q101 qualified
- * P/N suffix V means Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load,



DO-214AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNITS
Peak Power Dissipation at TA = 25°C, TP = 1mS (Note 1)	PPPM	Minimum 3000	W
Steady State Power Dissipation at TL = 75°C	PM(AV)	7.5	W
Peak Forward Surge Current, 8.3mS Single half sine-wave superimposed on rated load (JEDEC METHODE)	IFSM	250	A
Current Squared Time	I ² t	259.2	A ² /Sec
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150	°C

NOTES : 1. Non-repetitive current pulse, per Fig.3 and derated above TA = 25°C per Fig.2.
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2017-12
REV: A

RATING AND CHARACTERISTIC CURVES (3KPSMC5.0 THRU 3KPSMC110A)

FIG. 1 - PEAK PULSE POWER RATING CURVE

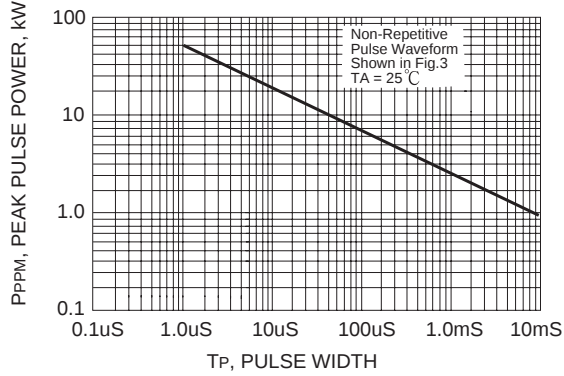


FIG. 2 - PULSE DERATING CURVE

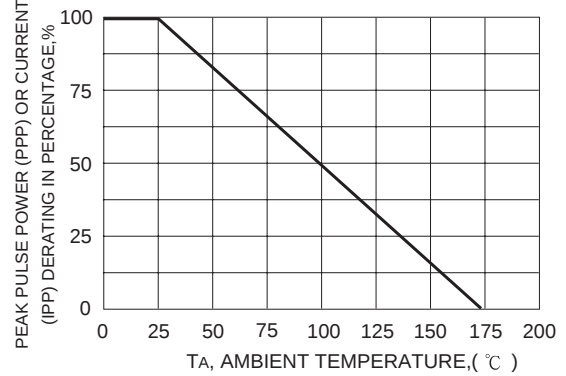


FIG. 3 - PULSE WAVEFORM

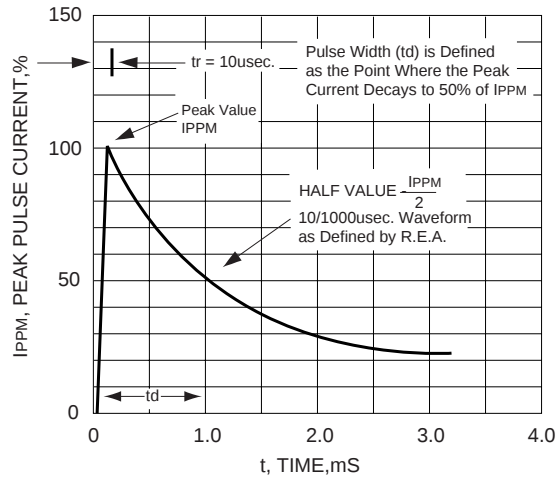


FIG. 4 - STEADY STATE POWER DERATING CURVE

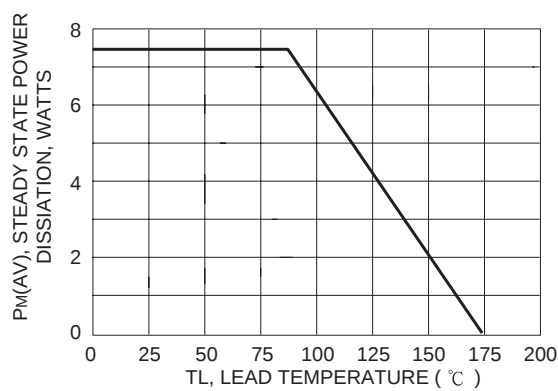
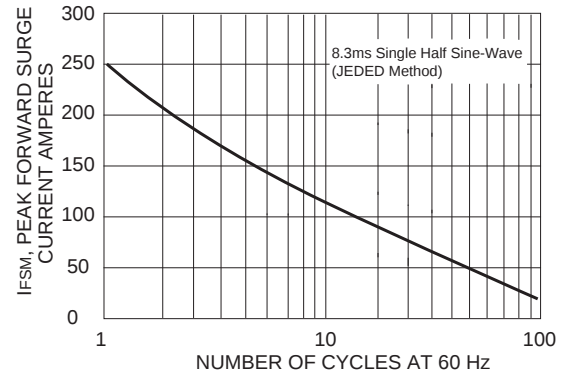


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNIDIRECTIONAL



TRANSIENT VOLTAGE SUPPRESSORS

3000W SERIES TVS DIODES/R-6 (CASE 12) 3000W

TYPE	Breakdown Voltage			Reverse Stand off Voltage V _{WM} (Volts)	Maximum Reverse Leakage at V _{WM} I _D (uA)	Maximum Peak Pulse Current I _{PPM} (Amps)	Maximum Clamping Voltage at I _{PPM} V _C (Volts)
	V _{BR} (Volts)		@I _T (mA)				
	MIN.	MAX.					
3KPSMC5.0	6.40	7.30	50	5.0	2000	312.5	9.6
3KPSMC5.0A	6.40	7.00	50	5.0	2000	326	9.2
3KPSMC6.0	6.67	8.15	50	6.0	5000	263	11.4
3KPSMC6.0A	6.67	7.37	50	6.0	5000	291	10.3
3KPSMC6.5	7.22	8.82	50	6.5	2000	244	12.3
3KPSMC6.5A	7.22	7.98	50	6.5	2000	267.8	11.2
3KPSMC7.0	7.78	9.51	50	7.0	1000	225.5	13.3
3KPSMC7.0A	7.78	8.60	50	7.0	1000	250	12.0
3KPSMC7.5	8.33	10.2	5.0	7.5	250	209.7	14.3
3KPSMC7.5A	8.33	9.21	5.0	7.5	250	232.5	12.9
3KPSMC8.0	8.89	10.9	5.0	8.0	150	200	15.0
3KPSMC8.0A	8.89	9.83	5.0	8.0	150	220.6	13.6
3KPSMC8.5	9.44	11.5	5.0	8.5	50	188.7	15.9
3KPSMC8.5A	9.44	10.4	5.0	8.5	50	208.3	14.4
3KPSMC9.0	10.0	12.2	5.0	9.0	20	177.5	16.9
3KPSMC9.0A	10.0	11.1	5.0	9.0	20	194.8	15.4
3KPSMC10	11.1	13.6	5.0	10.0	15	159.6	18.8
3KPSMC10A	11.1	12.3	5.0	10.0	15	176.4	17.0
3KPSMC11	12.2	14.9	5.0	11.0	10	149.2	20.1
3KPSMC11A	12.2	13.5	5.0	11.0	10	164.8	18.2
3KPSMC12	13.3	16.3	5.0	12.0	10	136.4	22.0
3KPSMC12A	13.3	14.7	5.0	12.0	10	150.7	19.9
3KPSMC13	14.4	17.6	5.0	13.0	10	126	23.8
3KPSMC13A	14.4	15.9	5.0	13.0	10	139.5	21.5
3KPSMC14	15.6	19.1	5.0	14.0	10	116.3	25.8
3KPSMC14A	15.6	17.2	5.0	14.0	10	129.3	23.2
3KPSMC15	16.7	20.4	5.0	15.0	10	111.5	26.9
3KPSMC15A	16.7	18.5	5.0	15.0	10	122.9	24.4
3KPSMC16	17.8	21.8	5.0	16.0	10	104.2	28.8
3KPSMC16A	17.8	19.7	5.0	16.0	10	115.4	26.0
3KPSMC17	18.9	23.1	5.0	17.0	10	98.4	30.5
3KPSMC17A	18.9	20.9	5.0	17.0	10	108.7	27.6
3KPSMC18	20.0	24.4	5.0	18.0	10	93.2	32.2
3KPSMC18A	20.0	22.1	5.0	18.0	10	102.7	29.2
3KPSMC20	22.2	27.1	5.0	20.0	10	83.8	35.8
3KPSMC20A	22.2	24.5	5.0	20.0	10	92.6	32.4
3KPSMC22	24.4	29.8	5.0	22.0	10	76.1	39.4
3KPSMC22A	24.4	26.9	5.0	22.0	10	84.5	35.5
3KPSMC24	26.7	32.6	5.0	24.0	10	69.7	43.0
3KPSMC24A	26.7	29.5	5.0	24.0	10	77.1	38.9
3KPSMC26	28.9	35.3	5.0	26.0	10	64.4	46.6
3KPSMC26A	28.9	31.9	5.0	26.0	10	71.2	42.1
3KPSMC28	31.1	38.0	5.0	28.0	10	59.9	50.1
3KPSMC28A	31.1	34.4	5.0	28.0	10	66.1	45.4
3KPSMC30	33.3	40.7	5.0	30.0	10	56	53.5
3KPSMC30A	33.3	36.8	5.0	30.0	10	62	48.4

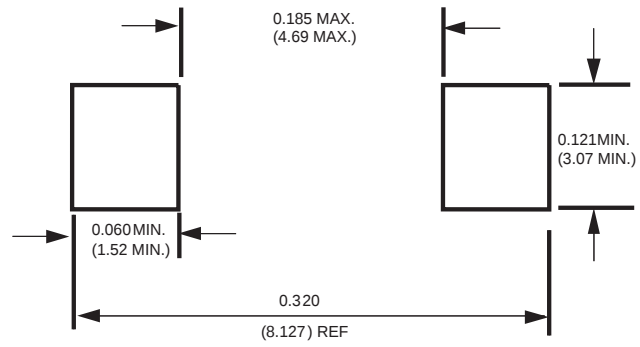
TRANSIENT VOLTAGE SUPPRESSORS

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	V _{BR} (Volts)		@I _T (mA)				
	MIN.	MAX.					
3KPSMC33	36.7	44.9	5.0	33.0	10	50.8	59.0
3KPSMC33A	36.7	40.6	5.0	33.0	10	56.3	53.3
3KPSMC36	40.0	48.9	5.0	36.0	10	46.6	64.3
3KPSMC36A	40.0	44.2	5.0	36.0	10	51.6	58.1
3KPSMC40	44.4	54.3	5.0	40.0	10	42.0	71.4
3KPSMC40A	44.4	49.1	5.0	40.0	10	46.5	64.5
3KPSMC43	47.8	58.4	5.0	43.0	10	39.1	76.7
3KPSMC43A	47.8	52.8	5.0	43.0	10	43.2	69.4
3KPSMC45	50.0	61.1	5.0	45.0	10	37.3	80.3
3KPSMC45A	50.0	55.3	5.0	45.0	10	41.3	72.7
3KPSMC48	53.3	65.2	5.0	48.0	10	35.1	85.5
3KPSMC48A	53.3	58.9	5.0	48.0	10	38.7	77.4
3KPSMC51	56.7	69.3	5.0	51.0	10	32.9	91.1
3KPSMC51A	56.7	62.7	5.0	51.0	10	36.4	82.4
3KPSMC54	60.0	73.3	5.0	54.0	10	31.2	96.3
3KPSMC54A	60.0	66.3	5.0	54.0	10	34.4	87.1
3KPSMC58	64.4	78.7	5.0	58.0	10	29.1	103
3KPSMC58A	64.4	71.2	5.0	58.0	10	31.9	94
3KPSMC60	66.7	81.5	5.0	60.0	10	28.0	107
3KPSMC60A	66.7	73.7	5.0	60.0	10	30.9	97
3KPSMC64	71.1	96.9	5.0	64.0	10	26.3	114
3KPSMC64A	71.1	78.6	5.0	64.0	10	29.1	103
3KPSMC70	77.8	95.1	5.0	70.0	10	24.0	125
3KPSMC70A	77.8	86.0	5.0	70.0	10	26.5	113
3KPSMC75	83.3	102	5.0	75.0	10	22.4	134
3KPSMC75A	83.3	92.1	5.0	75.0	10	24.8	121
3KPSMC78	86.7	106	5.0	78.0	10	21.6	139
3KPSMC78A	86.7	95.8	5.0	78.0	10	23.8	126
3KPSMC85	94.4	115	5.0	85.0	10	19.8	151
3KPSMC85A	94.4	104	5.0	85.0	10	21.9	137
3KPSMC90	100	122	5.0	90.0	10	18.7	160
3KPSMC90A	100	111	5.0	90.0	10	20.5	146
3KPSMC100	111	136	5.0	100	10	16.7	179
3KPSMC100A	111	123	5.0	100	10	18.5	162
3KPSMC110	122	149	5.0	110	10	15.3	196
3KPSMC110A	122	135	5.0	110	10	16.9	177

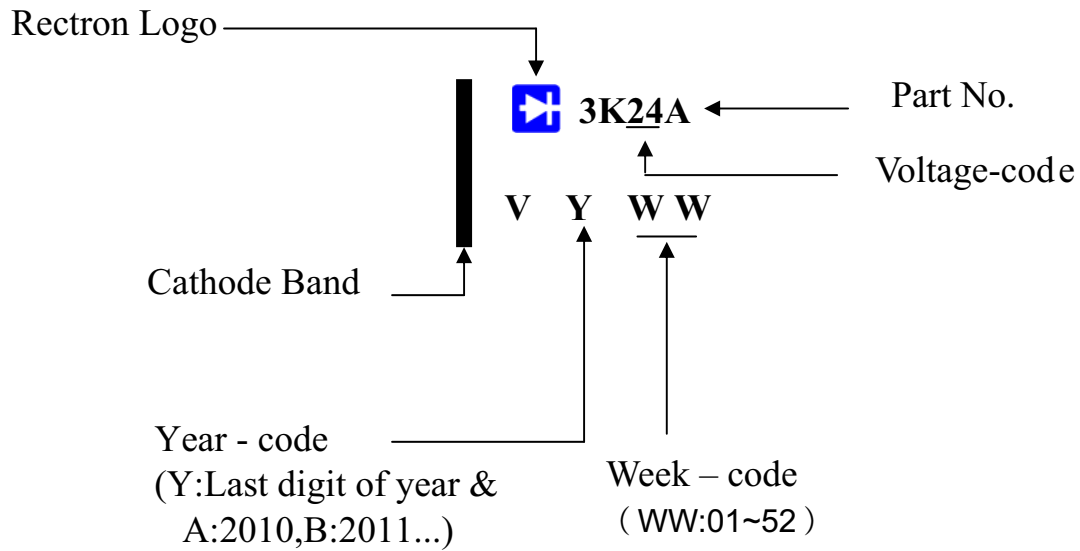
- Notes :
1. V_{BR} measured after I_T applied for 300us. I_T = square pulse or equivalent.
 2. For bidirectional use C or CA suffixs for all type (ex. 3KPSMC5.0C,3KPSMC110CA) electrical characteristics apply in both directions.
 3. For bidirectional types having V_{WM} of 10 volts and less, the I_D limit is doubled.

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMC	-T	500	---	---	176	390*205*310	12,000	6.65
SMC	-W	3,000	---	---	330	355*360*350	24,000	11.50

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