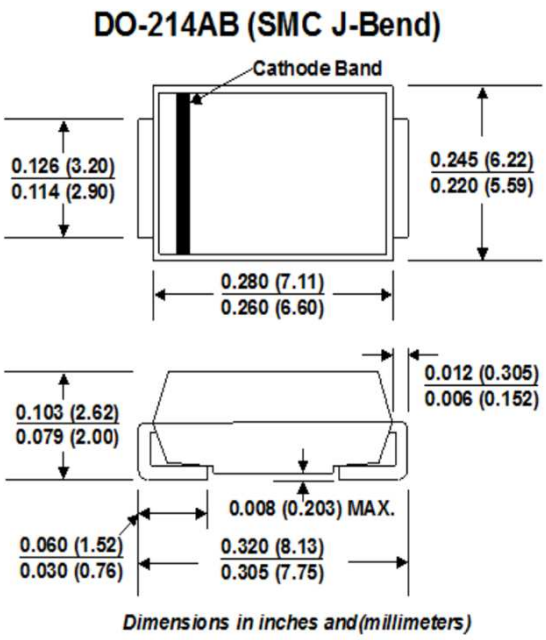
5KASMC SERIES

SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR
VOLTAGE-5.0 TO 170 Volts
5000 Watt Peak Pulse Power



Dimensions in inches and(millimeters)

FEATURES

◎ For surface mounted applications in order to optimize board space
◎ Halogen-Free
◎ RoHS compliant
◎ Typical maximum temperature coefficient $\triangle V_{BR}=0.1\%xV_{BR}@25℃x\triangle T$
◎ Low profile package
◎ Built-in strain relief
◎ Glass passivated junction
◎ Low inductance
◎ Excellent clamping capability
◎ Repetition Rate (duty cycle):0.01%
◎ Fast response time: typically less than 1.0ps from 0 Volts to BV
◎ AEC-Q101 qualified
◎ High temperature soldering: 260℃/40 seconds at ter minals
◎ Plastic package has Underwriters Laboratory Flammability 94V-O
◎ Matte Tin Lead-free plated

MECHANICAL DATA

Case: JEDEC DO214AB. Molded plastic over glass passivated junction
Terminal: Solderable per MIL-STD-750, Method 2026
Polarity: Color band denoted positive end (cathode) except Bidirectional
Standard Packaging: 16mm tape (EIA STD RS-481)
Weight: 0.007 ounce, 0.21 gram

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000μs waveform (Note 1,2 ,FIG.1)	P_{PPM}	Minimum 5000	Watts
Peak Pulse Current of on 10/1000μs waveform (Note 1,FIG.3)	I_{PPM}	SEE TABLE 1	Amps
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load,(JEDEC Method) (Note2, 3)	I_{FSM}	300	Amps
Operating junction and Storage Temperature Range	T_J , T_{STG}	-55 to + 150	℃

Notes :

1.Non-repetitive current pulse , per Fig. 3 and derated above T_A = 25℃ per Fig. 2 .
2.Mounted on 8.0mm x 8.0mm Copper Pads to each terminal
3.8.3ms single half sine-wave , or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

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VOLTAGE - 5.0 TO 170 Volts

5000Watts Peak Pulse Power

5KASMC PART NUMBER	DEVICE MARKING CODE		REVERSE STAND- OFF VOLTAGE V_{RWM}(V)	BREAKDOWN VOLTAGE V_{BR}(V) @I_T		TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc(V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @ V_{RWM} I_R(μA)
	Uni-polar	Bi-polar		MIN	MAX				
5KASMC 5.0A-CA	5AE	5KE	5.0	6.40	7.00	10	9.2	543.6	1050
5KASMC 6.0A-CA	5AG	5KG	6.0	6.67	7.37	10	10.3	485.5	1050
5KASMC 6.5A-CA	5AK	5KK	6.5	7.22	7.98	10	11.2	446.5	750
5KASMC 7.0A-CA	5AM	5KM	7.0	7.78	8.60	10	12.0	416.8	300
5KASMC 7.5A-CA	5AP	5KP	7.5	8.33	9.21	1	12.9	387.7	150
5KASMC 8.0A-CA	5AR	5KR	8.0	8.89	9.83	1	13.6	367.7	70
5KASMC 8.5A-CA	5AT	5KT	8.5	9.44	10.40	1	14.4	347.3	30
5KASMC 9.0A-CA	5AV	5KV	9.0	10.00	11.10	1	15.4	324.8	12
5KASMC 10A-CA	5AX	5KX	10.0	11.10	12.30	1	17.0	294.2	6
5KASMC 11A-CA	5AZ	5KZ	11.0	12.20	13.50	1	18.2	274.8	2
5KASMC 12A-CA	5BE	5LE	12.0	13.30	14.70	1	19.9	252.0	2
5KASMC 13A-CA	5BG	5LG	13.0	14.40	15.90	1	21.5	233.0	2
5KASMC 14A-CA	5BH	5LK	14.0	15.60	17.20	1	23.2	216.0	2
5KASMC 15A-CA	5BJ	5LM	15.0	16.70	18.50	1	24.4	205.0	2
5KASMC 16A-CA	5BP	5LP	16.0	17.80	19.70	1	26.0	193.0	2
5KASMC 17A-CA	5BR	5LR	17.0	18.90	20.90	1	27.6	181.0	2
5KASMC 18A-CA	5BT	5LT	18.0	20.00	22.10	1	29.2	172.0	2
5KASMC 20A-CA	5BV	5LV	20.0	22.20	24.50	1	32.4	155.0	2
5KASMC 22A-CA	5BX	5LX	22.0	24.40	26.90	1	35.5	141.0	2
5KASMC 24A-CA	5BZ	5LZ	24.0	26.70	29.50	1	38.9	129.0	2
5KASMC 26A-CA	5CE	5ME	26.0	28.90	31.90	1	42.1	119.0	2
5KASMC 28A-CA	5VG	5MG	28.0	31.10	34.40	1	45.4	110.0	2
5KASMC 30A-CA	5CK	5MK	30.0	33.30	36.80	1	48.4	103.0	2
5KASMC 33A-CA	5CM	5MM	33.0	36.70	40.60	1	53.3	93.9	2
5KASMC 36A-CA	5CP	5MP	36.0	40.00	44.20	1	58.1	86.1	2
5KASMC 40A-CA	5CR	5MR	40.0	44.40	49.10	1	64.5	77.6	2
5KASMC 43A-CA	5CT	5MT	43.0	47.80	52.80	1	69.4	72.1	2
5KASMC 45A-CA	5CV	5MV	45.0	50.00	55.30	1	72.7	68.8	2
5KASMC 48A-CA	5CX	5MX	48.0	53.30	58.90	1	77.4	64.7	2
5KASMC 51A-CA	5CZ	5MZ	51.0	56.70	62.70	1	82.4	60.7	2
5KASMC 54A-CA	5DE	5NE	54.0	60.00	66.30	1	87.1	57.5	2
5KASMC 58A-CA	5DG	5NG	58.0	64.40	71.20	1	93.6	53.5	2
5KASMC 60A-CA	5DK	5NK	60.0	66.70	73.70	1	96.8	51.7	2
5KASMC 64A-CA	5DM	5NM	64.0	71.10	78.60	1	103.0	48.6	2
5KASMC 70A-CA	5DP	5NP	70.0	77.80	86.00	1	113.0	44.3	2
5KASMC 75A-CA	5DR	5NR	75.0	83.30	92.10	1	121.0	41.4	2
5KASMC 78A-CA	5DT	5NT	78.0	86.70	95.80	1	126.0	39.7	2
5KASMC 85A-CA	5DV	5NV	85.0	94.40	104.00	1	137.0	36.5	2
5KASMC 90A	5DX	-	90.0	100.00	111.00	1	146.0	34.3	2
5KASMC 100A	5DZ	-	100.0	111.00	123.00	1	162.0	30.9	2
5KASMC 110A	5EE	-	110.0	122.00	135.00	1	177.0	28.3	2
5KASMC 120A	5EG	-	120.0	133.00	147.00	1	193.0	26.0	2
5KASMC 130A	5EK	-	130.0	144.00	159.00	1	209.0	24.0	2
5KASMC 150A	5EM	-	150.0	167.00	185.00	1	243.0	20.6	2
5KASMC 160A	5EP	-	160.0	178.00	197.00	1	259.0	19.3	2
5KASMC 170A	5ER	-	170.0	189.00	209.00	1	275.0	18.2	2

For bidirectional type having Vrwm of 10 volts and less, the IR limit is double.

RATINGS AND CHARACTERISTIC CURVES

Ratings and Characteristic Curves(T_A=25℃ unless otherwise noted)

Fig. 1 - Peak Pulse Power Rating

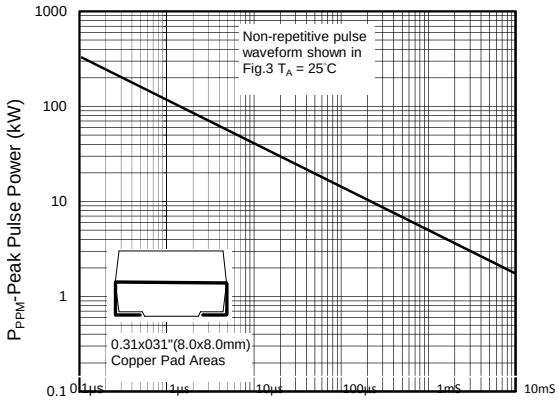


Fig.2 - Pulse Derating Curve

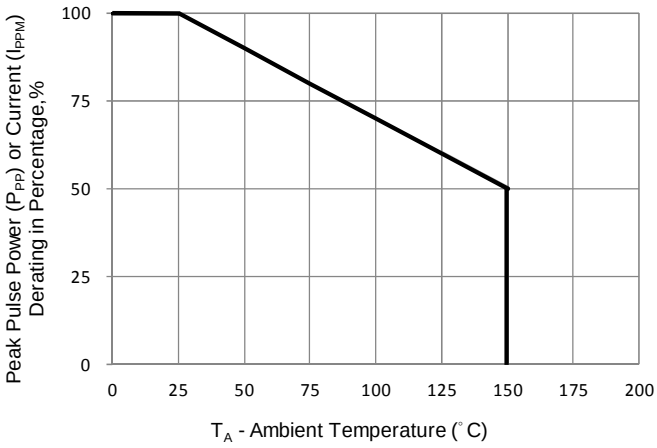


Fig.3 - Pulse Waveform

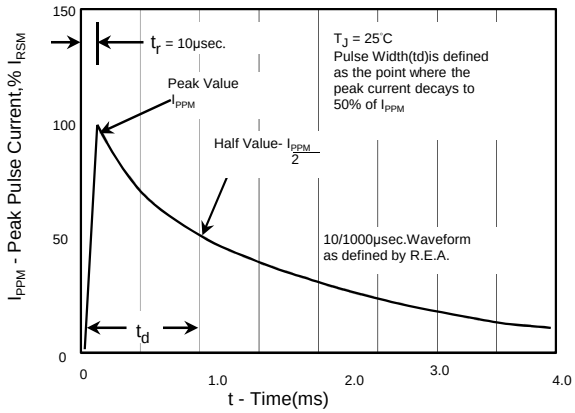


Fig. 4 - Typical Junction Capacitance

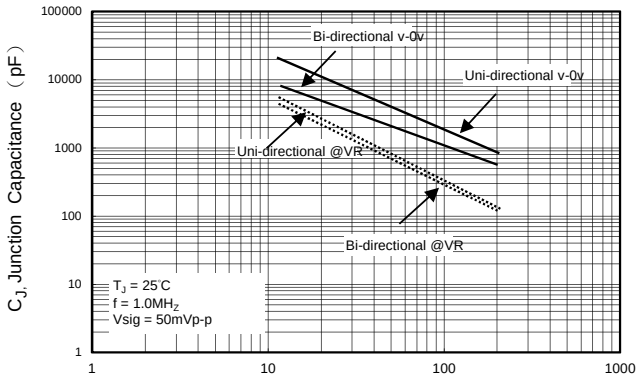


Fig. 5 - Steady State Power Derating Curve

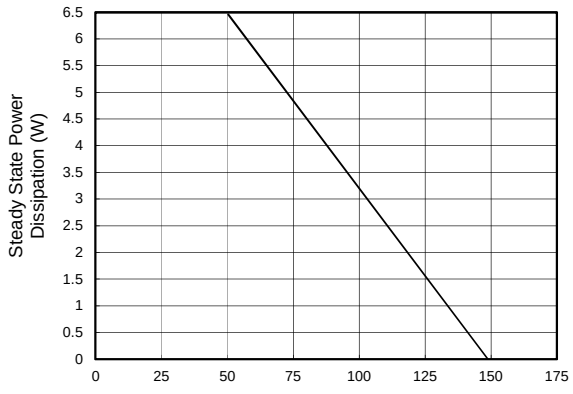
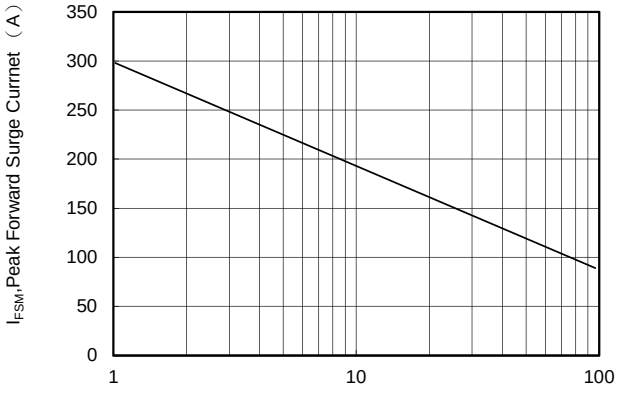


Fig.6 - Maximum Non-repetitive Forward Surge current uni-directional only



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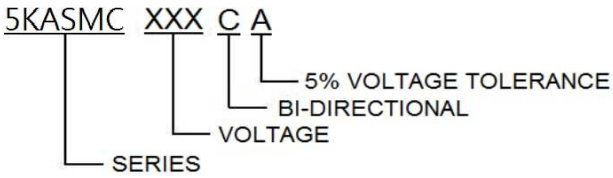
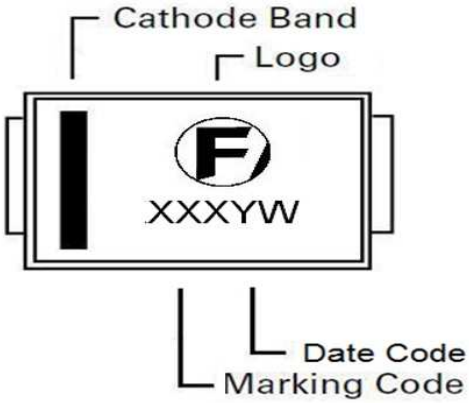
Part Numbering System



Part Marking System



Packaging

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
5KASMCxxxXX	DO-214AB	3000	Tape & Reel - 16mm/13" tape	EIA STD RS-481
5KASMCxxxXX	DO-214AB	500	Tape & Reel - 16mm/ 7" tape	EIA STD RS-481