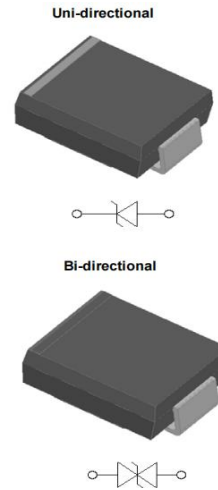


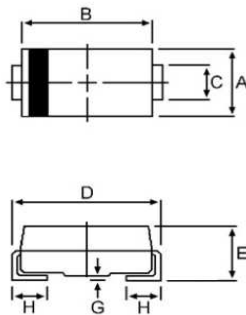
**Product: 1.5SMC AU Series**

**Feature**

- For surface mounted applications
- 1500W peak pulse power capability on 10/1000µs waveform
- Low incremental surge resistance, excellent clamping capability
- Very fast response time
- High temperature soldering guaranteed: 265°C/10 seconds
- Component in accordance to RoHS
- AEC-Q101



**Dimension Figure**



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	5.59	6.22	0.220	0.245
B	6.50	7.11	0.256	0.280
C	2.80	3.20	0.110	0.126
D	7.50	8.20	0.295	0.323
E	2.00	2.62	0.079	0.103
G	-	0.203	-	0.008
H	0.75	1.55	0.030	0.061

**Maximum Ratings**

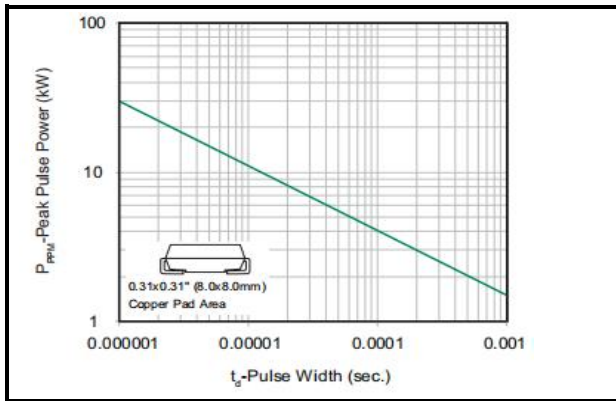
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A=25^{\circ}\text{C}$ by 10x1000µs waveform	$P_{PPM}$	1500	W
Power Dissipation on infinite heat sink at $T_A=50^{\circ}\text{C}$	$P_{M(AV)}$	6.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	$I_{FSM}$	200	A
Maximum Instantaneous Forward Voltage at 0.2A for Unidirectional	$V_F$	1.2	V
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	15	$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	75	$^{\circ}\text{C/W}$

## Electrical Characteristics

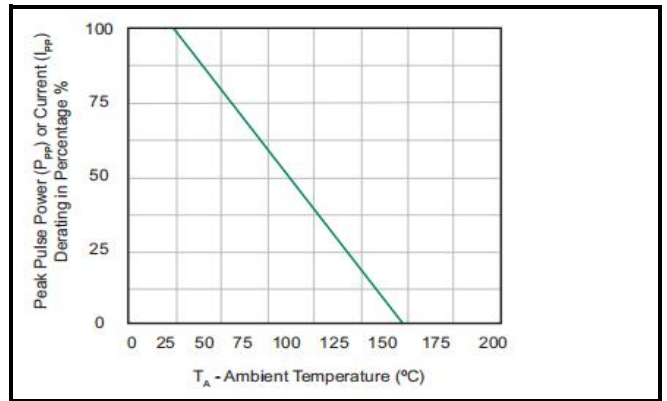
P/N		Marking		VR (V)	VBR @ IT (V)		IT (mA)	IR@ VR ( $\mu$ A)		Ipp (A)	VC@ Ipp (V)
Uni	Bi	Uni	Bi		MIN	MAX		Uni	Bi		
1.5SMC6.8A-AU	1.5SMC6.8CA-AU	6V8A	6V8C	5.8	6.45	7.14	10	300	600	144.8	10.5
1.5SMC7.5A-AU	1.5SMC7.5CA-AU	7V5A	7V5C	6.4	7.13	7.88	10	300	600	134.5	11.3
1.5SMC8.2A-AU	1.5SMC8.2CA-AU	8V2A	8V2C	7.02	7.79	8.61	10	100	200	125.6	12.1
1.5SMC9.1A-AU	1.5SMC9.1CA-AU	9V1A	9V1C	7.78	8.65	9.5	1	40	80	113.4	13.4
1.5SMC10A-AU	1.5SMC10CA-AU	10A	10C	8.55	9.5	10.5	1	5	15	104.8	14.5
1.5SMC11A-AU	1.5SMC11CA-AU	11A	11C	9.4	10.5	11.6	1	3	4	97.4	15.6
1.5SMC12A-AU	1.5SMC12CA-AU	12A	12C	10.2	11.4	12.6	1	1.0	1.0	91.0	16.7
1.5SMC13A-AU	1.5SMC13CA-AU	13A	13C	11.1	12.4	13.7	1	1.0	1.0	83.5	18.2
1.5SMC15A-AU	1.5SMC15CA-AU	15A	15C	12.8	14.3	15.8	1	1.0	1.0	71.7	21.2
1.5SMC16A-AU	1.5SMC16CA-AU	16A	16C	13.6	15.2	16.8	1	1.0	1.0	67.6	22.5
1.5SMC18A-AU	1.5SMC18CA-AU	18A	18C	15.3	17.1	18.9	1	1.0	1.0	60.3	25.2
1.5SMC20A-AU	1.5SMC20CA-AU	20A	20C	17.1	19	21	1	1.0	1.0	54.9	27.7
1.5SMC22A-AU	1.5SMC22CA-AU	22A	22C	18.8	20.9	23.1	1	1.0	1.0	49.7	30.6
1.5SMC24A-AU	1.5SMC24CA-AU	24A	24C	20.5	22.8	25.2	1	1.0	1.0	45.8	33.2
1.5SMC27A-AU	1.5SMC27CA-AU	27A	27C	23.1	25.7	28.4	1	1.0	1.0	40.5	37.5
1.5SMC30A-AU	1.5SMC30CA-AU	30A	30C	25.6	28.5	31.5	1	1.0	1.0	36.7	41.4
1.5SMC33A-AU	1.5SMC33CA-AU	33A	33C	28.2	31.4	34.7	1	1.0	1.0	33.3	45.7
1.5SMC36A-AU	1.5SMC36CA-AU	36A	36C	30.8	34.2	37.8	1	1.0	1.0	30.5	49.9
1.5SMC39A-AU	1.5SMC39CA-AU	39A	39C	33.3	37.1	41	1	1.0	1.0	28.2	53.9
1.5SMC43A-AU	1.5SMC43CA-AU	43A	43C	36.8	40.9	45.2	1	1.0	1.0	25.6	59.3
1.5SMC47A-AU	1.5SMC47CA-AU	47A	47C	40.2	44.7	49.4	1	1.0	1.0	23.5	64.8
1.5SMC51A-AU	1.5SMC51CA-AU	51A	51C	43.6	48.5	53.6	1	1.0	1.0	21.7	70.1
1.5SMC56A-AU	1.5SMC56CA-AU	56A	56C	47.8	53.2	58.8	1	1.0	1.0	19.7	77
1.5SMC62A-AU	1.5SMC62CA-AU	62A	62C	53	58.9	65.1	1	1.0	1.0	17.9	85
1.5SMC68A-AU	1.5SMC68CA-AU	68A	68C	58.1	64.6	71.4	1	1.0	1.0	16.5	92
1.5SMC75A-AU	1.5SMC75CA-AU	75A	75C	64.1	71.3	78.8	1	1.0	1.0	14.8	103
1.5SMC82A-AU	1.5SMC82CA-AU	82A	82C	70.1	77.9	86.1	1	1.0	1.0	13.5	113
1.5SMC91A-AU	1.5SMC91CA-AU	91A	91C	77.8	86.5	95.5	1	1.0	1.0	12.2	125
1.5SMC100A-AU	1.5SMC100CA-AU	68A	100C	85.5	95	105	1	1.0	1.0	11.1	137
1.5SMC110A-AU	1.5SMC110CA-AU	75A	110C	94	105	116	1	1.0	1.0	10.0	152
1.5SMC120A-AU	1.5SMC120CA-AU	120A	120C	102	114	126	1	1.0	1.0	9.2	165
1.5SMC130A-AU	1.5SMC130CA-AU	130A	130C	111	124	137	1	1.0	1.0	8.5	179
1.5SMC150A-AU	1.5SMC150CA-AU	150A	150C	128	143	158	1	1.0	1.0	7.3	207
1.5SMC160A-AU	1.5SMC160CA-AU	160A	160C	136	152	168	1	1.0	1.0	6.9	219
1.5SMC170A-AU	1.5SMC170CA-AU	170A	170C	145	162	179	1	1.0	1.0	6.5	234
1.5SMC180A-AU	1.5SMC180CA-AU	180A	180C	154	171	189	1	1.0	1.0	6.2	246
1.5SMC200A-AU	1.5SMC200CA-AU	200A	200C	171	190	210	1	1.0	1.0	5.5	274
1.5SMC220A-AU	1.5SMC220CA-AU	220A	220C	185	209	231	1	1.0	1.0	4.6	328
1.5SMC250A-AU	1.5SMC250CA-AU	250A	250C	214	237	263	1	1.0	1.0	4.4	344
1.5SMC300A-AU	1.5SMC300CA-AU	300A	300C	256	285	315	1	1.0	1.0	3.7	414
1.5SMC350A-AU	1.5SMC350CA-AU	350A	350C	300	332	368	1	1.0	1.0	3.2	482
1.5SMC400A-AU	1.5SMC400CA-AU	400A	400C	342	380	420	1	1.0	1.0	2.8	548
1.5SMC440A-AU	1.5SMC440CA-AU	440A	440C	376	418	462	1	1.0	1.0	2.5	602
1.5SMC480A-AU	1.5SMC480CA-AU	480A	480C	408	456	504	1	1.0	1.0	2.3	658
1.5SMC510A-AU	1.5SMC510CA-AU	510A	510C	434	485	535	1	1.0	1.0	2.1	698
1.5SMC530A-AU	1.5SMC530CA-AU	530A	530C	477	503.5	556.5	1	1.0	1.0	2.1	725
1.5SMC540A-AU	1.5SMC540CA-AU	540A	540C	486	513	567	1	1.0	1.0	2.0	740
1.5SMC550A-AU	1.5SMC550CA-AU	550A	550C	495	522.5	577.5	1	1.0	1.0	2.0	760

**Ratings and Characteristic Curves (TA=25°C unless otherwise noted)**

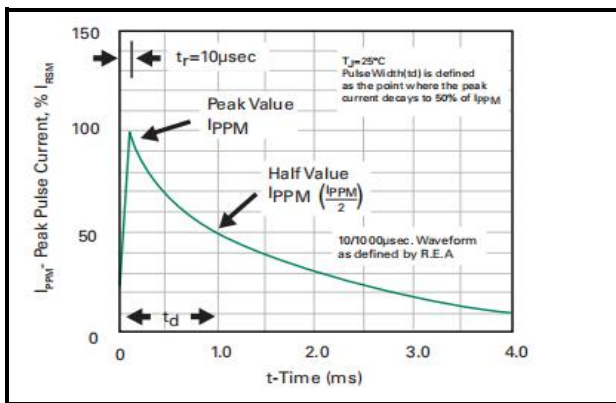
**Figure 1 - Peak Pulse Power Rating Curve**



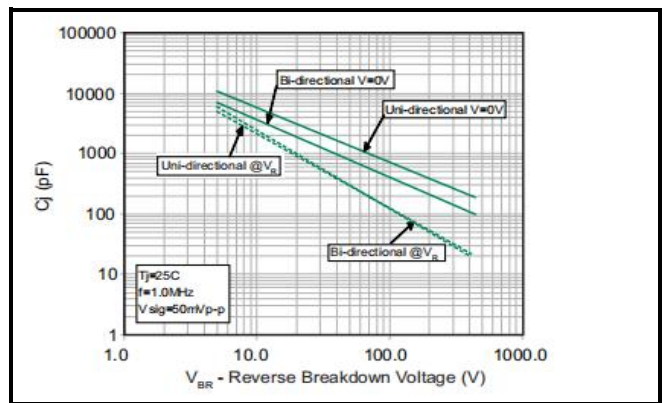
**Figure 2 - Pulse Derating Curve**



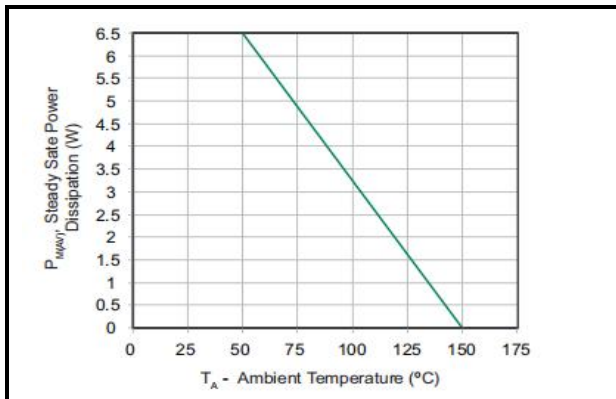
**Figure 3 - Pulse Waveform**



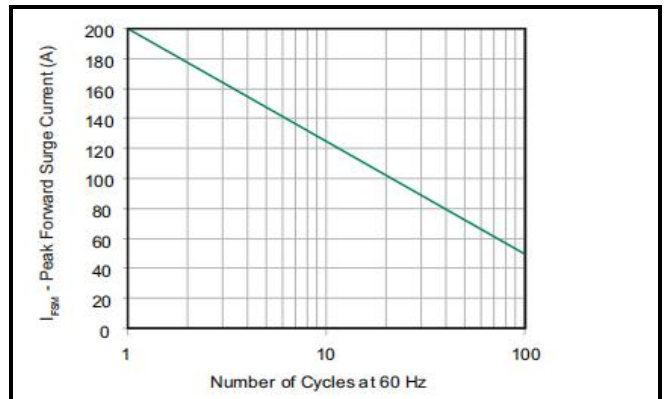
**Figure 4 - Typical Junction Capacitance**



**Figure 5 - Steady State Power Dissipation Derating Curve**



**Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only**



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