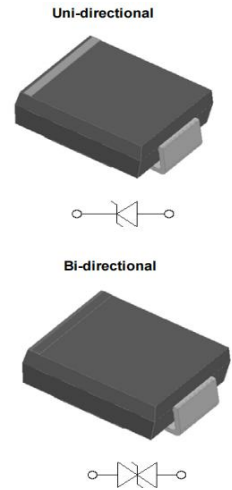


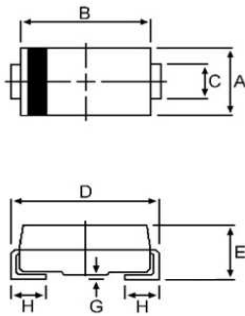
**Product: SMCJ AU Series**

**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**

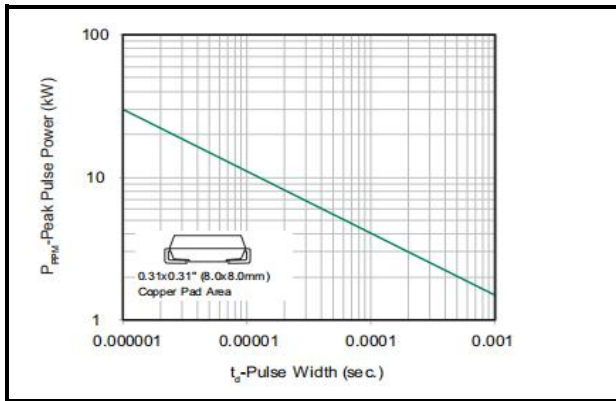
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A=25^{\circ}\text{C}$ by 10x1000µs waveform	$P_{PPM}$	1500	W
Power Dissipation on infinite heat sink at $T_A=50^{\circ}\text{C}$	$P_{M(AV)}$	6.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	$I_{FSM}$	200	A
Maximum Instantaneous 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	$R_{uJL}$	15	$^{\circ}\text{C}/\text{W}$
Typical Thermal Resistance Junction to Ambient	$R_{uJA}$	75	$^{\circ}\text{C}/\text{W}$

## Electrical Characteristics

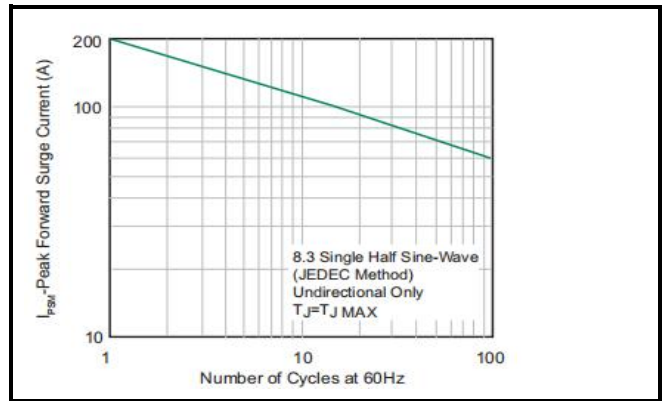
P/N		Marking		VR (V)	VBR @ IT (V)		IT (mA)	IR@ VR ( $\mu$ A)		Ipp (A)	VC@ Ipp (V)
Uni	Bi	Uni	Bi		MIN	MAX		Uni	Bi		
SMCJ5.0A-AU	SMCJ5.0CA-AU	GDE	BDE	5	6.4	7	10	300	600	163.0	9.2
SMCJ6.0A-AU	SMCJ6.0CA-AU	GDG	BDG	6	6.67	7.37	10	300	600	145.7	10.3
SMCJ6.5A-AU	SMCJ6.5CA-AU	GDK	BDK	6.5	7.22	7.98	10	100	200	134.0	11.2
SMCJ7.0A-AU	SMCJ7.0CA-AU	GDM	BDM	7	7.78	8.6	10	100	150	125.0	12
SMCJ7.5A-AU	SMCJ7.5CA-AU	GDP	BDP	7.5	8.33	9.21	1	40	80	116.3	12.9
SMCJ8.0A-AU	SMCJ8.0CA-AU	GDR	BDR	8	8.89	9.83	1	30	30	110.3	13.6
SMCJ8.5A-AU	SMCJ8.5CA-AU	GDT	BDT	8.5	9.44	10.4	1	5	15	104.2	14.4
SMCJ9.0A-AU	SMCJ9.0CA-AU	GDV	BDV	9	10	11.1	1	2.5	4	97.4	15.4
SMCJ10A-AU	SMCJ10CA-AU	GDX	BDX	10	11.1	12.3	1	1.0	1.0	88.3	17
SMCJ11A-AU	SMCJ11CA-AU	GDZ	BDZ	11	12.2	13.5	1	1.0	1.0	82.5	18.2
SMCJ12A-AU	SMCJ12CA-AU	GEE	BEE	12	13.3	14.7	1	1.0	1.0	75.4	19.9
SMCJ13A-AU	SMCJ13CA-AU	GEG	BEG	13	14.4	15.9	1	1.0	1.0	69.8	21.5
SMCJ14A-AU	SMCJ14CA-AU	GEK	BEK	14	15.6	17.2	1	1.0	1.0	64.7	23.2
SMCJ15A-AU	SMCJ15CA-AU	GEM	BEM	15	16.7	18.5	1	1.0	1.0	61.5	24.4
SMCJ16A-AU	SMCJ16CA-AU	GEP	BEP	16	17.8	19.7	1	1.0	1.0	57.7	26
SMCJ17A-AU	SMCJ17CA-AU	GER	BER	17	18.9	20.9	1	1.0	1.0	54.4	27.6
SMCJ18A-AU	SMCJ18CA-AU	GET	BET	18	20	22.1	1	1.0	1.0	51.4	29.2
SMCJ20A-AU	SMCJ20CA-AU	GEV	BEV	20	22.2	24.5	1	1.0	1.0	46.3	32.4
SMCJ22A-AU	SMCJ22CA-AU	GEX	BEX	22	24.4	26.9	1	1.0	1.0	42.3	35.5
SMCJ24A-AU	SMCJ24CA-AU	GEZ	BEZ	24	26.7	29.5	1	1.0	1.0	38.6	38.9
SMCJ26A-AU	SMCJ26CA-AU	GFE	BFE	26	28.9	31.9	1	1.0	1.0	35.7	42.1
SMCJ28A-AU	SMCJ28CA-AU	GFG	BFG	28	31.1	34.4	1	1.0	1.0	33.1	45.4
SMCJ30A-AU	SMCJ30CA-AU	GFK	BFK	30	33.3	36.8	1	1.0	1.0	31.0	48.4
SMCJ33A-AU	SMCJ33CA-AU	GFM	BFM	33	36.7	40.6	1	1.0	1.0	28.2	53.3
SMCJ36A-AU	SMCJ36CA-AU	GFP	BFP	36	40	44.2	1	1.0	1.0	25.9	58.1
SMCJ40A-AU	SMCJ40CA-AU	GFR	BFR	40	44.4	49.1	1	1.0	1.0	23.3	64.5
SMCJ43A-AU	SMCJ43CA-AU	GFT	BFT	43	47.8	52.8	1	1.0	1.0	21.7	69.4
SMCJ45A-AU	SMCJ45CA-AU	GFV	BFV	45	50	55.3	1	1.0	1.0	20.6	72.7
SMCJ48A-AU	SMCJ48CA-AU	GFX	BFX	48	53.3	58.9	1	1.0	1.0	19.4	77.4
SMCJ51A-AU	SMCJ51CA-AU	GFZ	BFZ	51	56.7	62.7	1	1.0	1.0	18.2	82.4
SMCJ54A-AU	SMCJ54CA-AU	GGE	BGE	54	60	66.3	1	1.0	1.0	17.3	87.1
SMCJ58A-AU	SMCJ58CA-AU	GGG	BGG	58	64.4	71.2	1	1.0	1.0	16.1	93.6
SMCJ60A-AU	SMCJ60CA-AU	GGK	BGK	60	66.7	73.7	1	1.0	1.0	15.5	96.8
SMCJ64A-AU	SMCJ64CA-AU	GGM	BGM	64	71.1	78.6	1	1.0	1.0	14.6	103
SMCJ70A-AU	SMCJ70CA-AU	GGP	BGP	70	77.8	86	1	1.0	1.0	13.3	113
SMCJ75A-AU	SMCJ75CA-AU	GGR	BGR	75	83.3	92.1	1	1.0	1.0	12.4	121
SMCJ78A-AU	SMCJ78CA-AU	GGT	BGT	78	86.7	95.8	1	1.0	1.0	11.9	126
SMCJ85A-AU	SMCJ85CA-AU	GGV	BGV	85	94.4	104	1	1.0	1.0	11.0	137
SMCJ90A-AU	SMCJ90CA-AU	GGX	BGX	90	100	111	1	1.0	1.0	10.3	146
SMCJ100A-AU	SMCJ100CA-AU	GGZ	BGZ	100	111	123	1	1.0	1.0	9.3	162
SMCJ110A-AU	SMCJ110CA-AU	GHE	BHE	110	122	135	1	1.0	1.0	8.5	177
SMCJ120A-AU	SMCJ120CA-AU	GHG	BHG	120	133	147	1	1.0	1.0	7.8	193
SMCJ130A-AU	SMCJ130CA-AU	GHK	BHK	130	144	159	1	1.0	1.0	7.2	209
SMCJ150A-AU	SMCJ150CA-AU	GHM	BHM	150	167	185	1	1.0	1.0	6.2	243
SMCJ160A-AU	SMCJ160CA-AU	GHP	BHP	160	178	197	1	1.0	1.0	5.8	259
SMCJ170A-AU	SMCJ170CA-AU	GHR	BHR	170	189	209	1	1.0	1.0	5.5	275
SMCJ180A-AU	SMCJ180CA-AU	GHT	BHT	180	201	222	1	1.0	1.0	5.1	292
SMCJ200A-AU	SMCJ200CA-AU	GHV	BHV	200	224	247	1	1.0	1.0	4.6	324
SMCJ220A-AU	SMCJ220CA-AU	GHX	BHX	220	246	272	1	1.0	1.0	4.2	356
SMCJ250A-AU	SMCJ250CA-AU	GHZ	BHZ	250	279	309	1	1.0	1.0	3.7	405
SMCJ300A-AU	SMCJ300CA-AU	GJE	BJE	300	335	371	1	1.0	1.0	3.1	486
SMCJ350A-AU	SMCJ350CA-AU	GJG	BJG	350	391	432	1	1.0	1.0	2.6	567
SMCJ400A-AU	SMCJ400CA-AU	GJK	BJK	400	447	494	1	1.0	1.0	2.3	648
SMCJ440A-AU	SMCJ440CA-AU	GJM	BJM	440	492	543	1	1.0	1.0	2.1	713

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

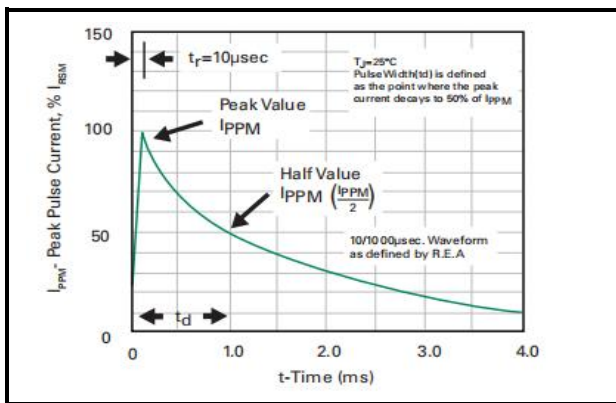
**Figure 1 - Peak Pulse Power Rating Curve**



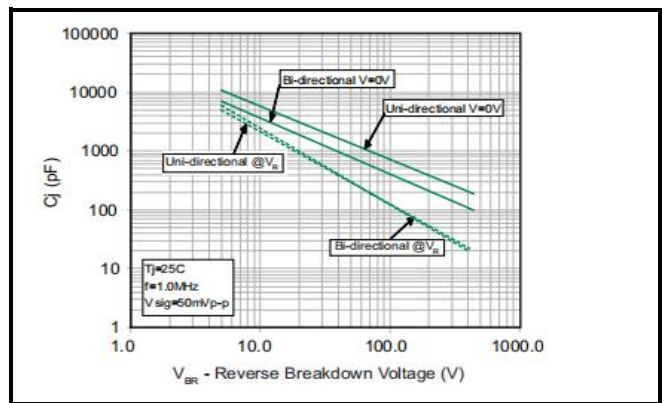
**Figure 2 - Pulse Derating Curve**



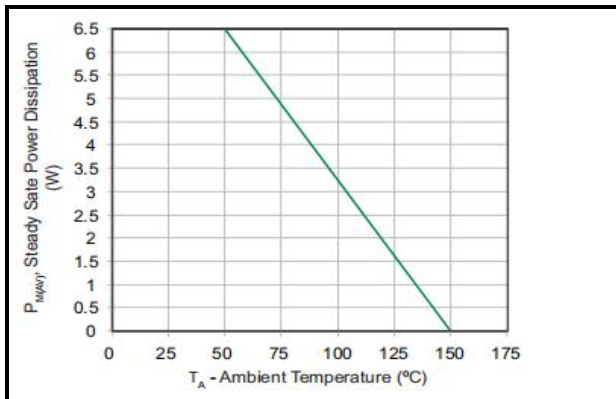
**Figure 3 - Pulse Waveform**



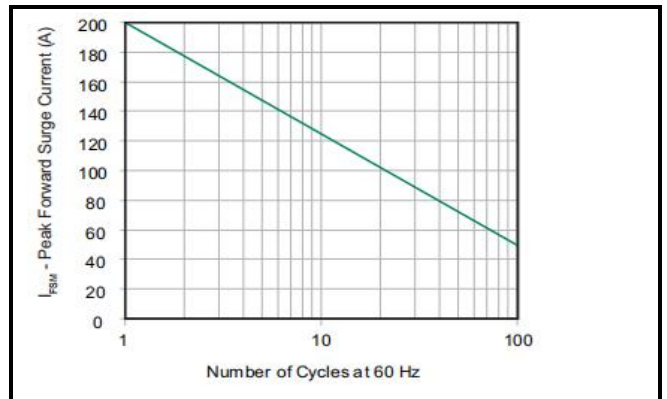
**Figure 4 - Typical Junction Capacitance**



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



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



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