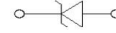
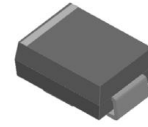


Product: SMBJ AU Series

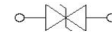
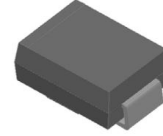
Feature

- For surface mounted applications
- 600W 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

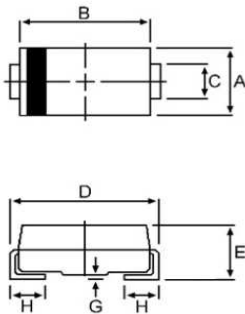
Uni-directional



Bi-directional



Dimension Figure



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	3.30	3.94	0.130	0.155
B	4.06	4.60	0.160	0.181
C	1.80	2.20	0.071	0.087
D	4.90	5.60	0.193	0.220
E	2.00	2.60	0.079	0.102
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}	600	W
Power Dissipation on infinite heat sink at $T_A=50^\circ\text{C}$	$P_{M(AV)}$	5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	I_{FSM}	100	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	$R_{\theta JL}$	20	$^\circ\text{C/W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100	$^\circ\text{C/W}$

Electrical Characteristics

P/N		Marking		VR (V)	VBR @ IT (V)		IT (mA)	IR@ VR (μ A)		Ipp (A)	VC@ Ipp (V)
Uni	Bi	Uni	Bi		MIN	MAX		Uni	Bi		
SMBJ5.0A-AU	SMBJ5.0CA-AU	KE	AE	5	6.4	7	10	200	400	65.3	9.2
SMBJ6.0A-AU	SMBJ6.0CA-AU	KG	AG	6	6.67	7.37	10	200	400	58.3	10.3
SMBJ6.5A-AU	SMBJ6.5CA-AU	KK	AK	6.5	7.22	7.98	10	50	80	53.6	11.2
SMBJ7.0A-AU	SMBJ7.0CA-AU	KM	AM	7	7.78	8.6	10	50	80	50.0	12
SMBJ7.5A-AU	SMBJ7.5CA-AU	KP	AP	7.5	8.33	9.21	1	5	40	46.6	12.9
SMBJ8.0A-AU	SMBJ8.0CA-AU	KR	AR	8	8.89	9.83	1	3	4	44.2	13.6
SMBJ8.5A-AU	SMBJ8.5CA-AU	KT	AT	8.5	9.44	10.4	1	2	8	41.7	14.4
SMBJ9.0A-AU	SMBJ9.0CA-AU	KV	AV	9	10	11.1	1	1.0	2.5	39.0	15.4
SMBJ10A-AU	SMBJ10CA-AU	KX	AX	10	11.1	12.3	1	1.0	1.0	35.3	17
SMBJ11A-AU	SMBJ11CA-AU	KZ	AZ	11	12.2	13.5	1	1.0	1.0	33.0	18.2
SMBJ12A-AU	SMBJ12CA-AU	LE	BE	12	13.3	14.7	1	1.0	1.0	30.2	19.9
SMBJ13A-AU	SMBJ13CA-AU	LG	BG	13	14.4	15.9	1	1.0	1.0	28.0	21.5
SMBJ14A-AU	SMBJ14CA-AU	LK	BK	14	15.6	17.2	1	1.0	1.0	25.9	23.2
SMBJ15A-AU	SMBJ15CA-AU	LM	BM	15	16.7	18.5	1	1.0	1.0	24.6	24.4
SMBJ16A-AU	SMBJ16CA-AU	LP	BP	16	17.8	19.7	1	1.0	1.0	23.1	26
SMBJ17A-AU	SMBJ17CA-AU	LR	BR	17	18.9	20.9	1	1.0	1.0	21.8	27.6
SMBJ18A-AU	SMBJ18CA-AU	LT	BT	18	20	22.1	1	1.0	1.0	20.6	29.2
SMBJ20A-AU	SMBJ20CA-AU	LV	BV	20	22.2	24.5	1	1.0	1.0	18.6	32.4
SMBJ22A-AU	SMBJ22CA-AU	LX	BX	22	24.4	26.9	1	1.0	1.0	16.9	35.5
SMBJ24A-AU	SMBJ24CA-AU	LZ	BZ	24	26.7	29.5	1	1.0	1.0	15.5	38.9
SMBJ26A-AU	SMBJ26CA-AU	ME	CE	26	28.9	31.9	1	1.0	1.0	14.3	42.1
SMBJ28A-AU	SMBJ28CA-AU	MG	CG	28	31.1	34.4	1	1.0	1.0	13.3	45.4
SMBJ30A-AU	SMBJ30CA-AU	MK	CK	30	33.3	36.8	1	1.0	1.0	12.4	48.4
SMBJ33A-AU	SMBJ33CA-AU	MM	CM	33	36.7	40.6	1	1.0	1.0	11.3	53.3
SMBJ36A-AU	SMBJ36CA-AU	MP	CP	36	40	44.2	1	1.0	1.0	10.4	58.1
SMBJ40A-AU	SMBJ40CA-AU	MR	CR	40	44.4	49.1	1	1.0	1.0	9.3	64.5
SMBJ43A-AU	SMBJ43CA-AU	MT	CT	43	47.8	52.8	1	1.0	1.0	8.7	69.4
SMBJ45A-AU	SMBJ45CA-AU	MV	CV	45	50	55.3	1	1.0	1.0	8.3	72.7
SMBJ48A-AU	SMBJ48CA-AU	MX	CX	48	53.3	58.9	1	1.0	1.0	7.8	77.4
SMBJ51A-AU	SMBJ51CA-AU	MZ	CZ	51	56.7	62.7	1	1.0	1.0	7.3	82.4
SMBJ54A-AU	SMBJ54CA-AU	NE	DE	54	60	66.3	1	1.0	1.0	6.9	87.1
SMBJ58A-AU	SMBJ58CA-AU	NG	DG	58	64.4	71.2	1	1.0	1.0	6.5	93.6
SMBJ60A-AU	SMBJ60CA-AU	NK	DK	60	66.7	73.7	1	1.0	1.0	6.2	96.8
SMBJ64A-AU	SMBJ64CA-AU	NM	DM	64	71.1	78.6	1	1.0	1.0	5.9	103
SMBJ70A-AU	SMBJ70CA-AU	NP	DP	70	77.8	86	1	1.0	1.0	5.3	113
SMBJ75A-AU	SMBJ75CA-AU	NR	DR	75	83.3	92.1	1	1.0	1.0	5.0	121
SMBJ78A-AU	SMBJ78CA-AU	NT	DT	78	86.7	95.8	1	1.0	1.0	4.8	126
SMBJ85A-AU	SMBJ85CA-AU	NV	DV	85	94.4	104	1	1.0	1.0	4.4	137
SMBJ90A-AU	SMBJ90CA-AU	NX	DX	90	100	111	1	1.0	1.0	4.1	146
SMBJ100A-AU	SMBJ100CA-AU	NZ	DZ	100	111	123	1	1.0	1.0	3.7	162
SMBJ110A-AU	SMBJ110CA-AU	PE	EE	110	122	135	1	1.0	1.0	3.4	177
SMBJ120A-AU	SMBJ120CA-AU	PG	EG	120	133	147	1	1.0	1.0	3.1	193
SMBJ130A-AU	SMBJ130CA-AU	PK	EK	130	144	159	1	1.0	1.0	2.9	209
SMBJ150A-AU	SMBJ150CA-AU	PM	EM	150	167	185	1	1.0	1.0	2.5	243
SMBJ160A-AU	SMBJ160CA-AU	PP	EP	160	178	197	1	1.0	1.0	2.3	259
SMBJ170A-AU	SMBJ170CA-AU	PR	ER	170	189	209	1	1.0	1.0	2.2	275
SMBJ180A-AU	SMBJ180CA-AU	PT	ET	180	201	222	1	1.0	1.0	2.1	292
SMBJ200A-AU	SMBJ200CA-AU	PV	EV	200	224	247	1	1.0	1.0	1.9	324
SMBJ220A-AU	SMBJ220CA-AU	PX	EX	220	246	272	1	1.0	1.0	1.7	356
SMBJ250A-AU	SMBJ250CA-AU	PZ	EZ	250	279	309	1	1.0	1.0	1.5	405
SMBJ300A-AU*	SMBJ300CA-AU*	QE	FE	300	335	371	1	1.0	1.0	1.3	486
SMBJ350A-AU*	SMBJ350CA-AU*	QG	FG	350	391	432	1	1.0	1.0	1.1	567
SMBJ400A-AU*	SMBJ400CA-AU*	QK	FK	400	447	494	1	1.0	1.0	0.9	648
SMBJ440A-AU*	SMBJ440CA-AU*	QM	FM	440	492	543	1	1.0	1.0	0.9	713

Notes: For stack-die parts, use * to label the part number.

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

Figure 1 - Peak Pulse Power Rating Curve

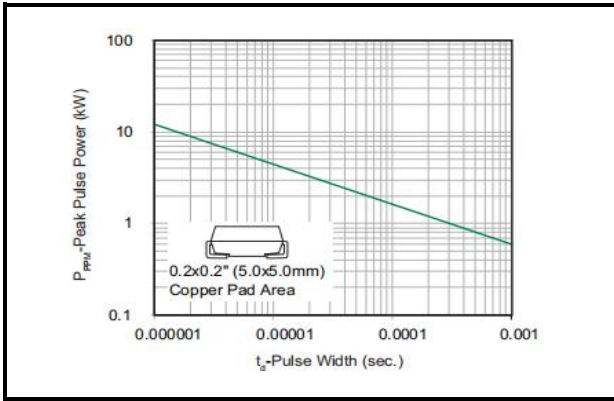


Figure 2 - Pulse Derating Curve

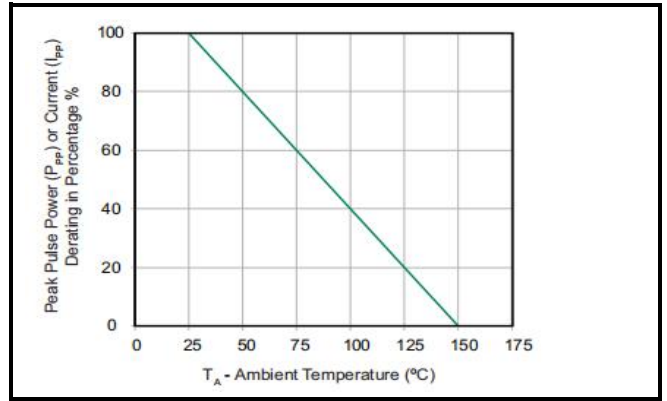


Figure 3 - Pulse Waveform

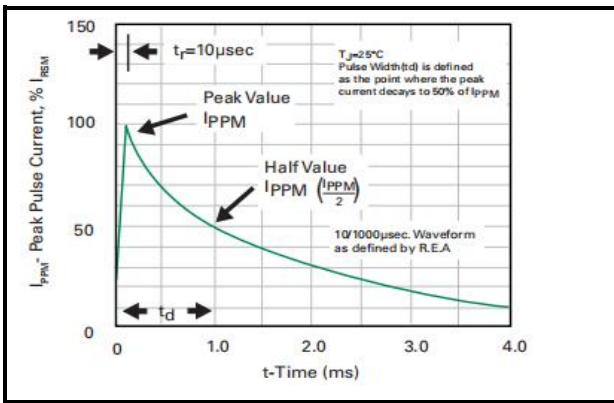


Figure 4 - Typical Junction Capacitance

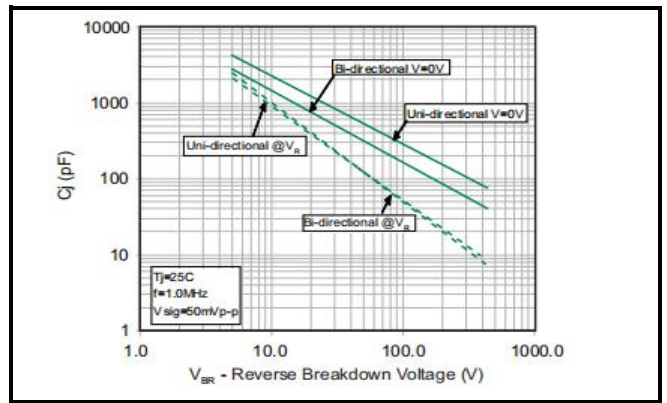


Figure 5 - Steady State Power Dissipation Derating Curve

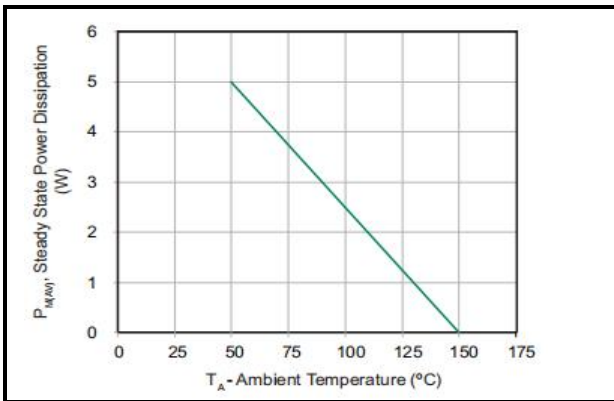
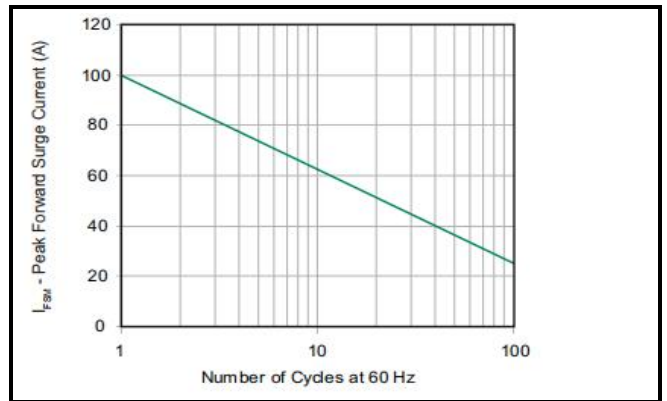


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



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