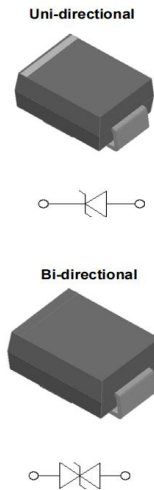


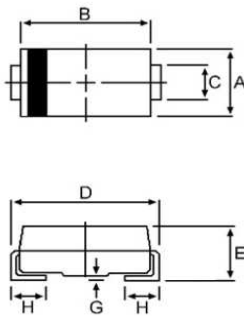
Product: 1.0SMB AU Series

Feature

- For surface mounted applications
- 1000W 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	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°C by 10x1000µs waveform	P _{PPM}	1000	W
Power Dissipation on infinite heat sink at T _A =50°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	°C
Typical Thermal Resistance Junction to Lead	R _{uJL}	20	°C/W
Typical Thermal Resistance Junction to Ambient	R _{uJA}	100	°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		
1.0SMB6.8A-AU	1.0SMB6.8CA-AU	A10A	N10A	5.8	6.45	7.14	10	300	600	95.2	10.5
1.0SMB7.5A-AU	1.0SMB7.5CA-AU	A10B	N10B	6.4	7.13	7.88	10	300	600	88.5	11.3
1.0SMB8.2A-AU	1.0SMB8.2CA-AU	A10C	N10C	7.02	7.79	8.61	10	100	200	82.6	12.1
1.0SMB9.1A-AU	1.0SMB9.1CA-AU	A10D	N10D	7.78	8.65	9.55	1	40	80	74.6	13.4
1.0SMB10A-AU	1.0SMB10CA-AU	A10E	N10E	8.55	9.5	10.5	1	5	15	69	14.5
1.0SMB11A-AU	1.0SMB11CA-AU	A10F	N10F	9.4	10.5	11.6	1	3	4	64.1	15.6
1.0SMB12A-AU	1.0SMB12CA-AU	A10G	N10G	10.2	11.4	12.6	1	1	1	59.9	16.7
1.0SMB13A-AU	1.0SMB13CA-AU	A10H	N10H	11.1	12.4	13.7	1	1	1	54.9	18.2
1.0SMB15A-AU	1.0SMB15CA-AU	A10I	N10I	12.8	14.3	15.8	1	1	1	47.2	21.2
1.0SMB16A-AU	1.0SMB16CA-AU	A10J	N10J	13.6	15.2	16.8	1	1	1	44.4	22.5
1.0SMB18A-AU	1.0SMB18CA-AU	A10K	N10K	15.3	17.1	18.9	1	1	1	39.2	25.5
1.0SMB20A-AU	1.0SMB20CA-AU	A10L	N10L	17.1	19	21	1	1	1	36.1	27.7
1.0SMB22A-AU	1.0SMB22CA-AU	A10M	N10M	18.8	20.9	23.1	1	1	1	32.7	30.6
1.0SMB24A-AU	1.0SMB24CA-AU	A10N	N10N	20.5	22.8	25.2	1	1	1	30.1	33.2
1.0SMB27A-AU	1.0SMB27CA-AU	A10O	N10O	23.1	25.7	28.4	1	1	1	26.7	37.5
1.0SMB30A-AU	1.0SMB30CA-AU	A10P	N10P	25.6	28.5	31.5	1	1	1	24.2	41.4
1.0SMB33A-AU	1.0SMB33CA-AU	A10Q	N10Q	28.2	31.4	34.7	1	1	1	21.9	45.7
1.0SMB36A-AU	1.0SMB36CA-AU	A10R	N10R	30.8	34.2	37.8	1	1	1	20	49.9
1.0SMB39A-AU	1.0SMB39CA-AU	A10S	N10S	33.3	37.1	41	1	1	1	18.6	53.9
1.0SMB43A-AU	1.0SMB43CA-AU	A10T	N10T	36.8	40.9	45.2	1	1	1	16.9	59.3
1.0SMB47A-AU	1.0SMB47CA-AU	A10U	N10U	40.2	44.7	49.4	1	1	1	15.4	64.8
1.0SMB51A-AU	1.0SMB51CA-AU	A10V	N10V	43.6	48.5	53.6	1	1	1	14.3	70.1
1.0SMB56A-AU	1.0SMB56CA-AU	A10W	N10W	47.8	53.2	58.8	1	1	1	13	77
1.0SMB62A-AU	1.0SMB62CA-AU	A10X	N10X	53	58.9	65.1	1	1	1	11.8	85
1.0SMB68A-AU	1.0SMB68CA-AU	A10Y	N10Y	58.1	64.6	71.4	1	1	1	10.9	92
1.0SMB75A-AU	1.0SMB75CA-AU	A10Z	N10Z	64.1	71.3	78.8	1	1	1	9.7	103
1.0SMB82A-AU	1.0SMB82CA-AU	B10A	O10A	70.1	77.9	86.1	1	1	1	8.8	113
1.0SMB91A-AU	1.0SMB91CA-AU	B10B	O10B	77.8	86.5	95.5	1	1	1	8	125
1.0SMB100A-AU	1.0SMB100CA-AU	B10C	O10C	85.5	95	105	1	1	1	7.3	137
1.0SMB110A-AU	1.0SMB110CA-AU	B10D	O10D	94	105	116	1	1	1	6.6	152
1.0SMB120A-AU	1.0SMB120CA-AU	B10E	O10E	102	114	126	1	1	1	6.1	165
1.0SMB130A-AU	1.0SMB130CA-AU	B10F	O10F	111	124	137	1	1	1	5.6	179
1.0SMB150A-AU	1.0SMB150CA-AU	B10G	O10G	128	143	158	1	1	1	4.8	207
1.0SMB160A-AU	1.0SMB160CA-AU	B10H	O10H	136	152	168	1	1	1	4.6	219
1.0SMB170A-AU	1.0SMB170CA-AU	B10I	O10I	145	162	179	1	1	1	4.3	234
1.0SMB180A-AU	1.0SMB180CA-AU	B10J	O10J	154	171	189	1	1	1	4.1	246
1.0SMB200A-AU	1.0SMB200CA-AU	B10K	O10K	171	190	210	1	1	1	3.6	274
1.0SMB220A-AU	1.0SMB220CA-AU	B10L	O10L	185	209	231	1	1	1	3.0	328
1.0SMB250A-AU	1.0SMB250CA-AU	B10M	O10M	214	237	263	1	1	1	2.9	344
1.0SMB300A-AU	1.0SMB300CA-AU	B10N	O10N	256	285	315	1	1	1	2.4	414

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

Figure 1 - Peak Pulse Power Rating Curve

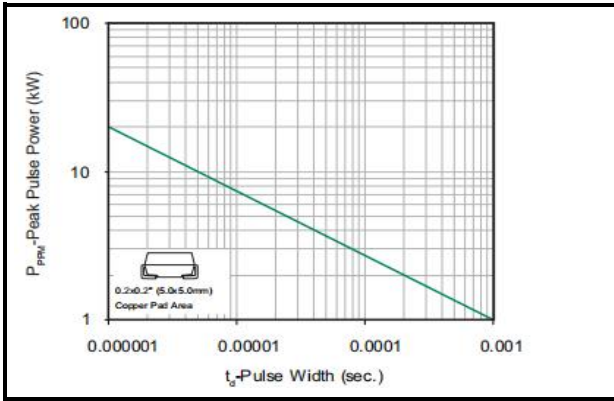


Figure 2 - Pulse Derating Curve

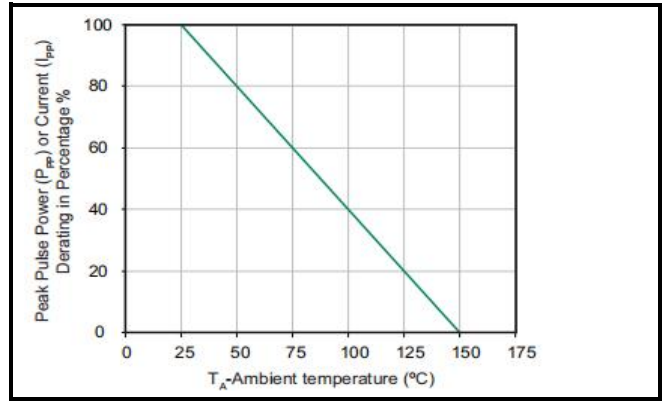


Figure 3 - Pulse Waveform

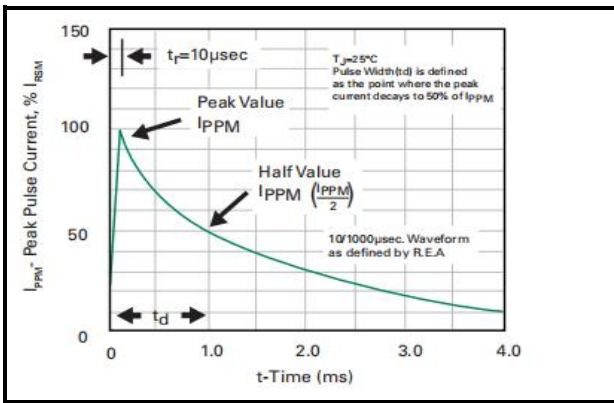


Figure 4 - Typical Junction Capacitance

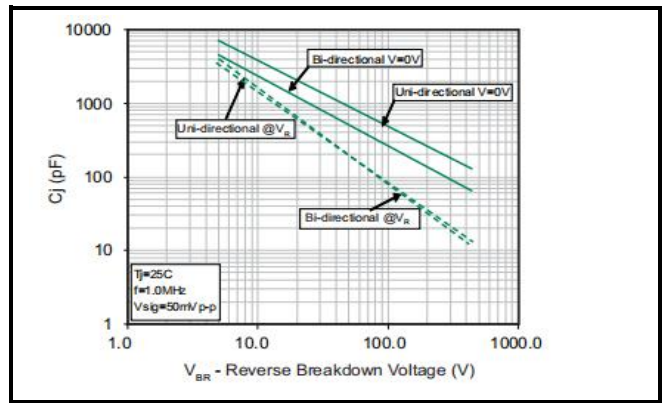


Figure 5 - Steady State Power Dissipation Derating Curve

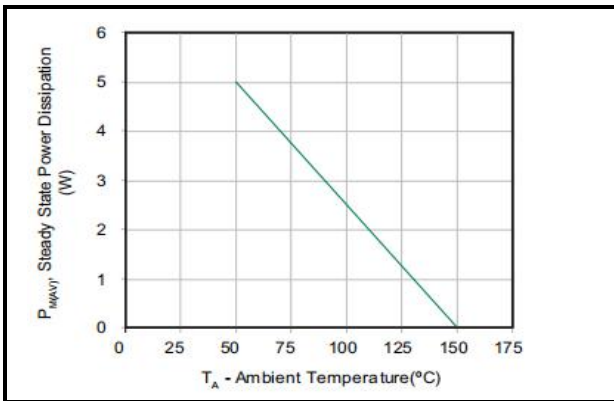
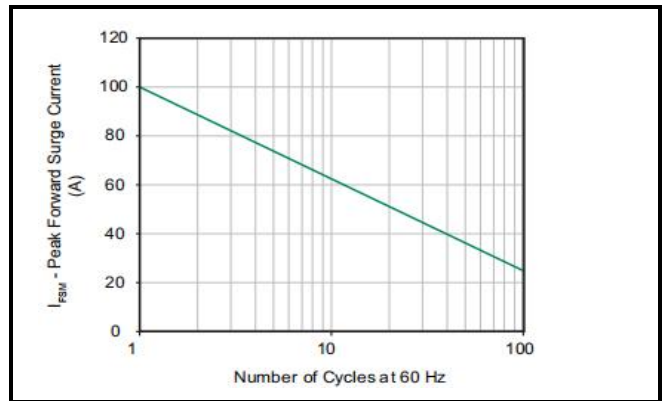


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



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