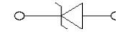
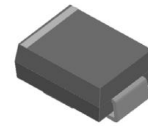


**Product: 1.0SMBJ AU Series**

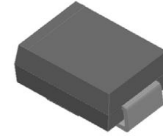
**Feature**

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

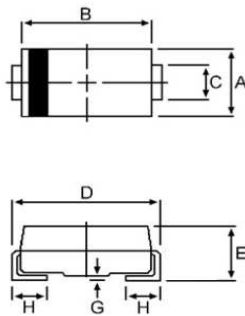
Uni-directional



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**

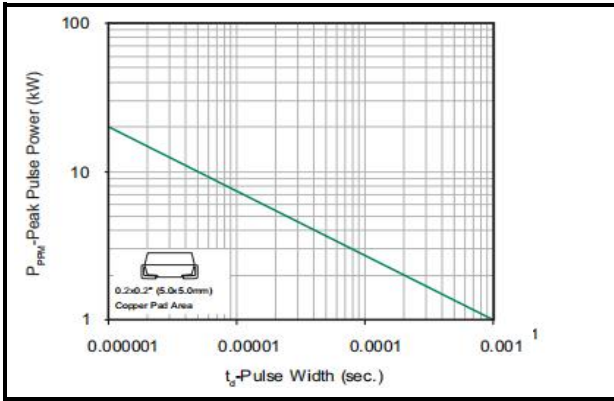
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A=25^\circ\text{C}$ by 10x1000µs waveform	$P_{PPM}$	1000	W
Power Dissipation on infinite heat sink at $T_A=50^\circ\text{C}$	$P_{M(AV)}$	5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	$I_{FSM}$	100	A
Maximum Instantaneous Forward Voltage at 0.2A for Unidirectional	$V_F$	1.2	V
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	°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

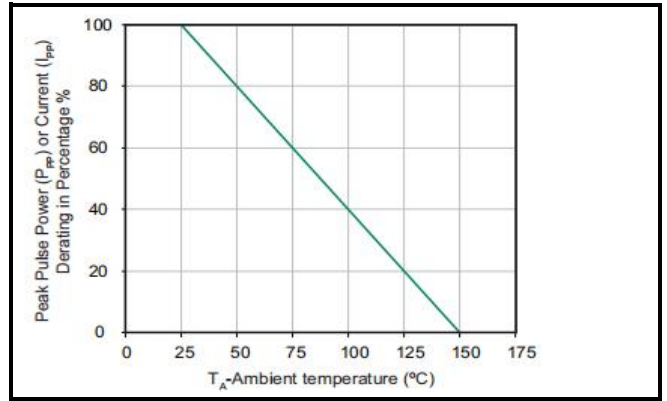
P/N		Marking		VR (V)	VBR @ IT (V)		IT (mA)	IR@ VR ( $\mu$ A)		Ipp (A)	VC@ Ipp (V)
Uni	Bi	Uni	Bi		MIN	MAX		Uni	Bi		
1.0SMBJ5.0A	1.0SMBJ5.0CA	AKE	AAE	5	6.4	7	10	300	600	108.7	9.2
1.0SMBJ6.0A	1.0SMBJ6.0CA	AKG	AAG	6	6.67	7.37	10	300	600	97.1	10.3
1.0SMBJ6.5A	1.0SMBJ6.5CA	AKK	AAK	6.5	7.22	7.98	10	100	200	89.3	11.2
1.0SMBJ7.0A	1.0SMBJ7.0CA	AKM	AAM	7	7.78	8.6	10	100	150	83.3	12
1.0SMBJ7.5A	1.0SMBJ7.5CA	AKP	AAP	7.5	8.33	9.21	1	40	80	77.5	12.9
1.0SMBJ8.0A	1.0SMBJ8.0CA	AKR	AAR	8	8.89	9.83	1	30	30	73.5	13.6
1.0SMBJ8.5A	1.0SMBJ8.5CA	AKT	AAT	8.5	9.44	10.4	1	5	15	69.4	14.4
1.0SMBJ9.0A	1.0SMBJ9.0CA	AKV	AAV	9	10	11.1	1	2.5	4	64.9	15.4
1.0SMBJ10A	1.0SMBJ10CA	ALX	AAX	10	11.1	12.3	1	1.0	1.0	58.8	17
1.0SMBJ11A	1.0SMBJ11CA	AKZ	AAZ	11	12.2	13.5	1	1.0	1.0	54.9	18.2
1.0SMBJ12A	1.0SMBJ12CA	ALE	ABE	12	13.3	14.7	1	1.0	1.0	50.3	19.9
1.0SMBJ13A	1.0SMBJ13CA	ALG	ABG	13	14.4	15.9	1	1.0	1.0	46.5	21.5
1.0SMBJ14A	1.0SMBJ14CA	ALK	ABK	14	15.6	17.2	1	1.0	1.0	43.1	23.2
1.0SMBJ15A	1.0SMBJ15CA	ALM	ABM	15	16.7	18.5	1	1.0	1.0	41.0	24.4
1.0SMBJ16A	1.0SMBJ16CA	ALP	ABP	16	17.8	19.7	1	1.0	1.0	38.5	26
1.0SMBJ17A	1.0SMBJ17CA	ALR	ABR	17	18.9	20.9	1	1.0	1.0	36.2	27.6
1.0SMBJ18A	1.0SMBJ18CA	ALT	ABT	18	20	22.1	1	1.0	1.0	34.2	29.2
1.0SMBJ20A	1.0SMBJ20CA	ALV	ABV	20	22.2	24.5	1	1.0	1.0	30.9	32.4
1.0SMBJ22A	1.0SMBJ22CA	ALX	ABX	22	24.4	26.9	1	1.0	1.0	28.2	35.5
1.0SMBJ24A	1.0SMBJ24CA	ALZ	ABZ	24	26.7	29.5	1	1.0	1.0	25.7	38.9
1.0SMBJ26A	1.0SMBJ26CA	AME	ACE	26	28.9	31.9	1	1.0	1.0	23.8	42.1
1.0SMBJ28A	1.0SMBJ28CA	AMG	ACG	28	31.1	34.4	1	1.0	1.0	22.0	45.4
1.0SMBJ30A	1.0SMBJ30CA	AMK	ACK	30	33.3	36.8	1	1.0	1.0	20.7	48.4
1.0SMBJ33A	1.0SMBJ33CA	AMM	ACM	33	36.7	40.6	1	1.0	1.0	18.8	53.3
1.0SMBJ36A	1.0SMBJ36CA	AMP	ACP	36	40	44.2	1	1.0	1.0	17.2	58.1
1.0SMBJ40A	1.0SMBJ40CA	AMR	ACR	40	44.4	49.1	1	1.0	1.0	15.5	64.5
1.0SMBJ43A	1.0SMBJ43CA	AMT	ACT	43	47.8	52.8	1	1.0	1.0	14.4	69.4
1.0SMBJ45A	1.0SMBJ45CA	AMV	ACV	45	50	55.3	1	1.0	1.0	13.8	72.7
1.0SMBJ48A	1.0SMBJ48CA	AMX	ACX	48	53.3	58.9	1	1.0	1.0	12.9	77.4
1.0SMBJ51A	1.0SMBJ51CA	AMZ	ACZ	51	56.7	62.7	1	1.0	1.0	12.1	82.4
1.0SMBJ54A	1.0SMBJ54CA	ANE	ADE	54	60	66.3	1	1.0	1.0	11.5	87.1
1.0SMBJ58A	1.0SMBJ58CA	ANG	ADG	58	64.4	71.2	1	1.0	1.0	10.7	93.6
1.0SMBJ60A	1.0SMBJ60CA	ANK	ADK	60	66.7	73.7	1	1.0	1.0	10.3	96.8
1.0SMBJ64A	1.0SMBJ64CA	ANM	ADM	64	71.1	78.6	1	1.0	1.0	9.7	103
1.0SMBJ70A	1.0SMBJ70CA	ANP	ADP	70	77.8	86	1	1.0	1.0	8.8	113
1.0SMBJ75A	1.0SMBJ75CA	ANR	ADR	75	83.3	92.1	1	1.0	1.0	8.3	121
1.0SMBJ78A	1.0SMBJ78CA	ANB	ADT	78	86.7	95.8	1	1.0	1.0	7.9	126
1.0SMBJ85A	1.0SMBJ85CA	ANV	ADV	85	94.4	104	1	1.0	1.0	7.3	137
1.0SMBJ90A	1.0SMBJ90CA	ANX	ADX	90	100	111	1	1.0	1.0	6.8	146
1.0SMBJ100A	1.0SMBJ100CA	ANZ	ADZ	100	111	123	1	1.0	1.0	6.2	162
1.0SMBJ110A	1.0SMBJ110CA	APE	AEE	110	122	135	1	1.0	1.0	5.6	177
1.0SMBJ120A	1.0SMBJ120CA	APG	AEG	120	133	147	1	1.0	1.0	5.2	193
1.0SMBJ130A	1.0SMBJ130CA	APK	AEK	130	144	159	1	1.0	1.0	4.8	209
1.0SMBJ150A	1.0SMBJ150CA	APM	AEM	150	167	185	1	1.0	1.0	4.1	243
1.0SMBJ160A	1.0SMBJ160CA	APP	AEP	160	178	197	1	1.0	1.0	3.9	259
1.0SMBJ170A	1.0SMBJ170CA	APR	AER	170	189	209	1	1.0	1.0	3.6	275
1.0SMBJ180A	1.0SMBJ180CA	APT	AET	180	201	222	1	1.0	1.0	3.4	292
1.0SMBJ190A	1.0SMBJ190CA	APB	AEB	190	209	243	1	1.0	1.0	3.2	308
1.0SMBJ200A	1.0SMBJ200CA	APV	EV	200	224	247	1	1.0	1.0	3.1	324
1.0SMBJ220A	1.0SMBJ220CA	APX	EX	220	246	272	1	1.0	1.0	2.8	356

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

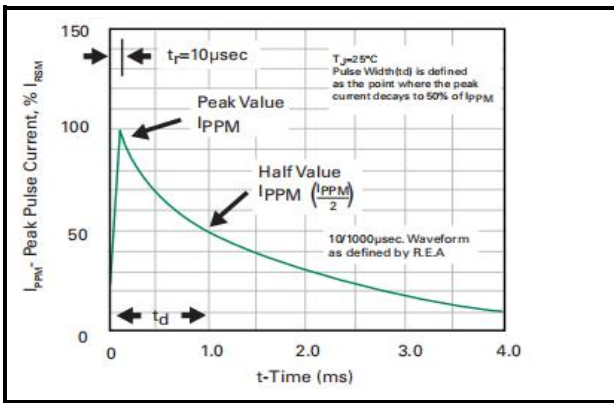
**Figure 1 - Peak Pulse Power Rating Curve**



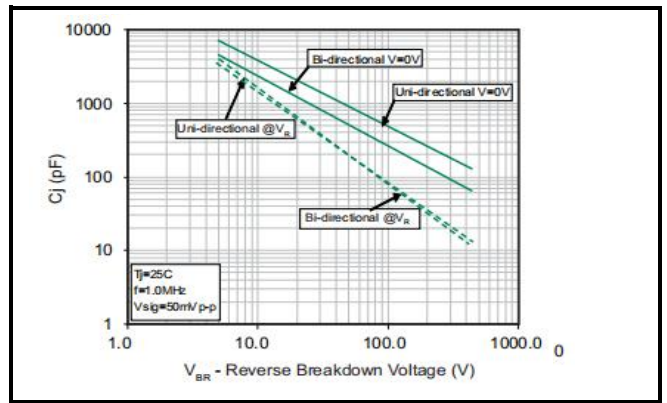
**Figure 2 - Pulse Derating Curve**



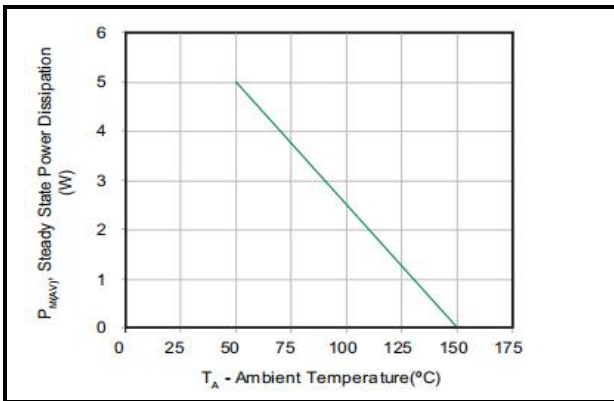
**Figure 3 - Pulse Waveform**



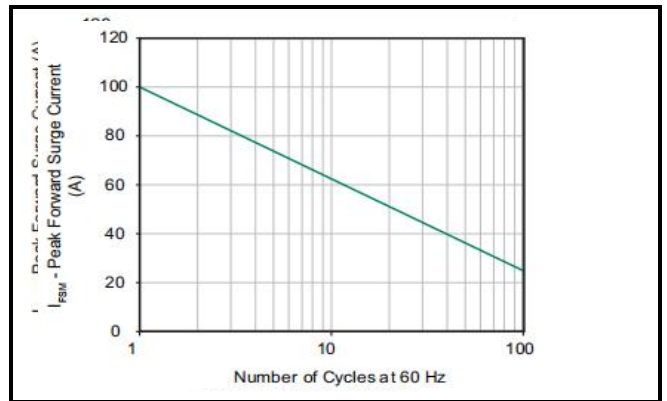
**Figure 4 - Typical Junction Capacitance**



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



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



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