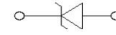
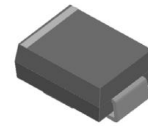


Product: P6SMB AU Series

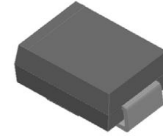
Feature

- 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

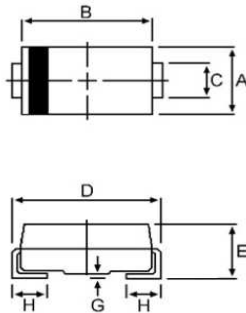
Uni-directional



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°C by 10x1000µs waveform	P _{PPM}	600	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		
P6SMB6.8A-AU	P6SMB6.8CA-AU	6V8A	6V8C	5.8	6.45	7.14	10	200	400	58.1	10.5
P6SMB7.5A-AU	P6SMB7.5CA-AU	7V5A	7V5C	6.4	7.13	7.88	10	200	400	54.0	11.3
P6SMB8.2A-AU	P6SMB8.2CA-AU	8V2A	8V2C	7.02	7.79	8.61	10	50	100	50.4	12.1
P6SMB9.1A-AU	P6SMB9.1CA-AU	9V1A	9V1C	7.78	8.65	9.55	1	5	40	45.5	13.4
P6SMB10A-AU	P6SMB10CA-AU	10A	10C	8.55	9.5	10.5	1	2	8	42.1	14.5
P6SMB11A-AU	P6SMB11CA-AU	11A	11C	9.4	10.5	11.6	1	1.0	2.5	39.1	15.6
P6SMB12A-AU	P6SMB12CA-AU	12A	12C	10.2	11.4	12.6	1	1.0	1.0	36.5	16.7
P6SMB13A-AU	P6SMB13CA-AU	13A	13C	11.1	12.4	13.7	1	1.0	1.0	33.5	18.2
P6SMB15A-AU	P6SMB15CA-AU	15A	15C	12.8	14.3	15.8	1	1.0	1.0	28.8	21.2
P6SMB16A-AU	P6SMB16CA-AU	16A	16C	13.6	15.2	16.8	1	1.0	1.0	27.1	22.5
P6SMB18A-AU	P6SMB18CA-AU	18A	18C	15.3	17.1	18.9	1	1.0	1.0	24.2	25.5
P6SMB20A-AU	P6SMB20CA-AU	20A	20C	17.1	19	21	1	1.0	1.0	22.0	27.7
P6SMB22A-AU	P6SMB22CA-AU	22A	22C	18.8	20.9	23.1	1	1.0	1.0	19.9	30.6
P6SMB24A-AU	P6SMB24CA-AU	24A	24C	20.5	22.8	25.2	1	1.0	1.0	18.4	33.2
P6SMB27A-AU	P6SMB27CA-AU	27A	27C	23.1	25.7	28.4	1	1.0	1.0	16.3	37.5
P6SMB30A-AU	P6SMB30CA-AU	30A	30C	25.6	28.5	31.5	1	1.0	1.0	14.7	41.4
P6SMB33A-AU	P6SMB33CA-AU	33A	33C	28.2	31.4	34.7	1	1.0	1.0	13.3	45.7
P6SMB36A-AU	P6SMB36CA-AU	36A	36C	30.8	34.2	37.8	1	1.0	1.0	12.2	49.9
P6SMB39A-AU	P6SMB39CA-AU	39A	39C	33.3	37.1	41	1	1.0	1.0	11.3	53.9
P6SMB43A-AU	P6SMB43CA-AU	43A	43C	36.8	40.9	45.2	1	1.0	1.0	10.3	59.3
P6SMB47A-AU	P6SMB47CA-AU	47A	47C	40.2	44.7	49.4	1	1.0	1.0	9.4	64.8
P6SMB51A-AU	P6SMB51CA-AU	51A	51C	43.6	48.5	53.6	1	1.0	1.0	8.7	70.1
P6SMB56A-AU	P6SMB56CA-AU	56A	56C	47.8	53.2	58.8	1	1.0	1.0	7.9	77
P6SMB62A-AU	P6SMB62CA-AU	62A	62C	53	58.9	65.1	1	1.0	1.0	7.2	85
P6SMB68A-AU	P6SMB68CA-AU	68A	68C	58.1	64.6	71.4	1	1.0	1.0	6.6	92
P6SMB75A-AU	P6SMB75CA-AU	75A	75C	64.1	71.3	78.8	1	1.0	1.0	5.9	103
P6SMB82A-AU	P6SMB82CA-AU	82A	82C	70.1	77.9	86.1	1	1.0	1.0	5.4	113
P6SMB91A-AU	P6SMB91CA-AU	91A	91C	77.8	86.5	95.5	1	1.0	1.0	4.9	125
P6SMB100A-AU	P6SMB100CA-AU	100A	100C	85.5	95	105	1	1.0	1.0	4.5	137
P6SMB110A-AU	P6SMB110CA-AU	110A	110C	94	105	116	1	1.0	1.0	4.0	152
P6SMB120A-AU	P6SMB120CA-AU	120A	120C	102	114	126	1	1.0	1.0	3.7	165
P6SMB130A-AU	P6SMB130CA-AU	130A	130C	111	124	137	1	1.0	1.0	3.4	179
P6SMB150A-AU	P6SMB150CA-AU	150A	150C	128	143	158	1	1.0	1.0	2.9	207
P6SMB160A-AU	P6SMB160CA-AU	160A	160C	136	152	168	1	1.0	1.0	2.8	219
P6SMB170A-AU	P6SMB170CA-AU	170A	170C	145	162	179	1	1.0	1.0	2.6	234
P6SMB180A-AU	P6SMB180CA-AU	180A	180C	154	171	189	1	1.0	1.0	2.5	246
P6SMB200A-AU	P6SMB200CA-AU	200A	200C	171	190	210	1	1.0	1.0	2.2	274
P6SMB220A-AU	P6SMB220CA-AU	220A	220C	185	209	231	1	1.0	1.0	1.9	328
P6SMB250A-AU	P6SMB250CA-AU	250A	250C	214	237	263	1	1.0	1.0	1.8	344
P6SMB300A-AU	P6SMB300CA-AU	300A	300C	256	285	315	1	1.0	1.0	1.5	414
P6SMB350A-AU	P6SMB350CA-AU	350A	350C	300	332	368	1	1.0	1.0	1.3	482
P6SMB400A-AU	P6SMB400CA-AU	400A	400C	342	380	420	1	1.0	1.0	1.1	548
P6SMB440A-AU	P6SMB440CA-AU	440A	440C	376	418	462	1	1.0	1.0	1.0	602
P6SMB480A-AU	P6SMB480CA-AU	480A	480C	408	456	504	1	1.0	1.0	0.9	658
P6SMB510A-AU	P6SMB510CA-AU	510A	510C	434	485	535	1	1.0	1.0	0.9	698
P6SMB530A-AU	P6SMB530CA-AU	530A	530C	477	503.5	556.5	1	1.0	1.0	0.8	725
P6SMB540A-AU	P6SMB540CA-AU	540A	540C	486	513	567	1	1.0	1.0	0.8	740
P6SMB550A-AU	P6SMB550CA-AU	550A	550C	495	522.5	577.5	1	1.0	1.0	0.8	760

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

Figure 1 - Peak Pulse Power Rating Curve

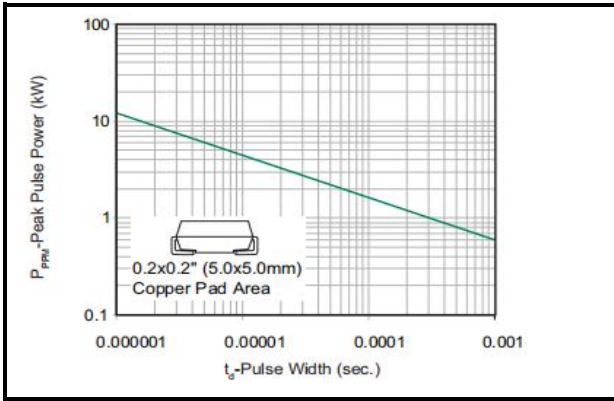


Figure 2 - Pulse Derating Curve

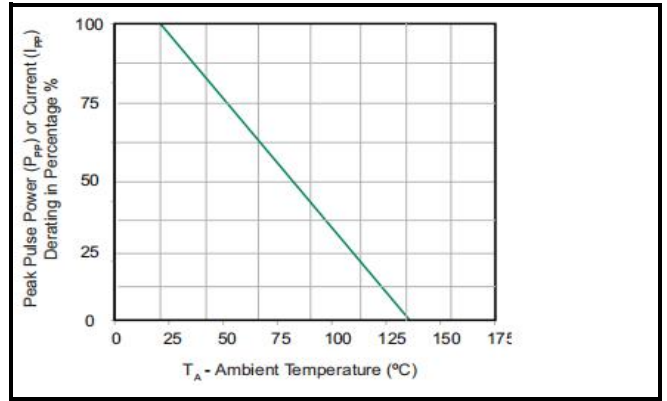


Figure 3 - Pulse Waveform

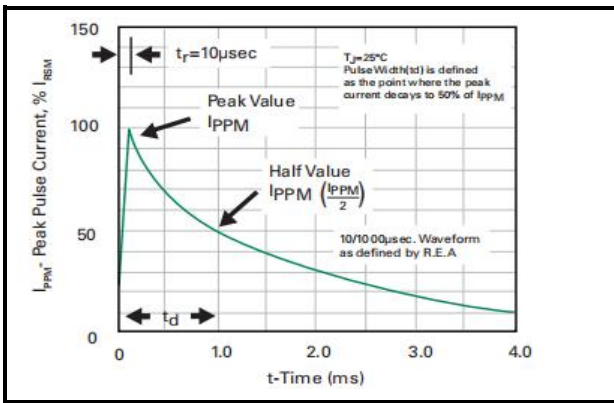


Figure 4 - Typical Junction Capacitance

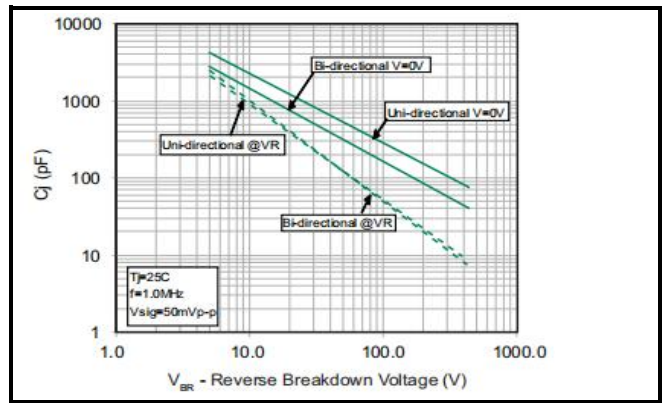


Figure 5 - Steady State Power Dissipation Derating Curve

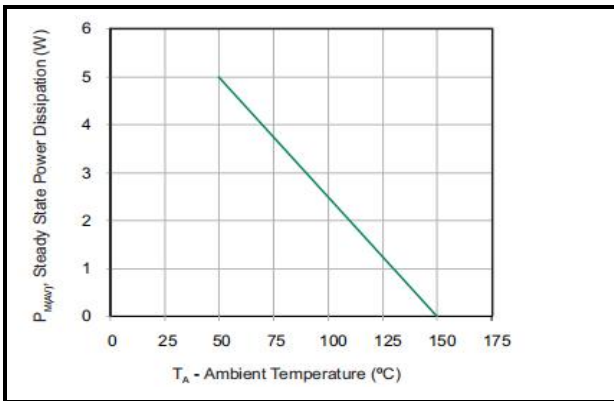
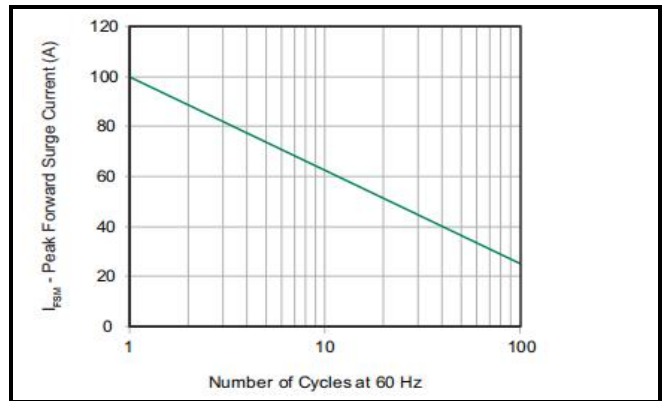


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



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