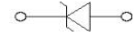
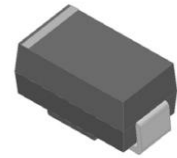


Product: P4SMA AU Series

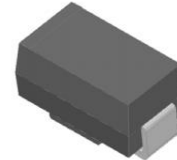
Feature

- For surface mounted applications
- 400W 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

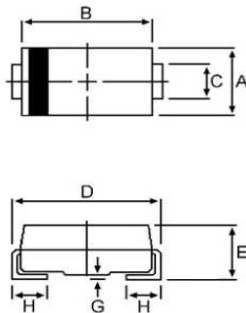
Uni-directional



Bi-directional



Dimension Figure



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	2.20	2.80	0.866	0.110
B	3.90	4.50	0.154	0.177
C	1.25	1.70	0.049	0.067
D	4.70	5.30	0.185	0.207
E	1.90	2.50	0.075	0.098
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}	400	W
Power Dissipation on infinite heat sink at $T_A=50^{\circ}\text{C}$	$P_{M(AV)}$	3.3	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	I_{FSM}	40	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}	30	$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Ambient	R_{uJA}	120	$^{\circ}\text{C/W}$

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		
P4SMA6.8A-AU	P4SMA6.8CA-AU	6V8A	6V8C	5.8	6.45	7.14	10	100	200	39.0	10.5
P4SMA7.5A-AU	P4SMA7.5CA-AU	7V5A	7V5C	6.4	7.13	7.88	10	100	200	36.3	11.3
P4SMA8.2A-AU	P4SMA8.2CA-AU	8V2A	8V2C	7.02	7.79	8.61	10	50	80	33.9	12.1
P4SMA9.1A-AU	P4SMA9.1CA-AU	9V1A	9V1C	7.78	8.65	9.55	1	3	30	30.6	13.4
P4SMA10A-AU	P4SMA10CA-AU	10A	10C	8.55	9.5	10.5	1	2	8	28.3	14.5
P4SMA11A-AU	P4SMA11CA-AU	11A	11C	9.4	10.5	11.6	1	1	2	26.3	15.6
P4SMA12A-AU	P4SMA12CA-AU	12A	12C	10.2	11.4	12.6	1	1.0	1.0	24.6	16.7
P4SMA13A-AU	P4SMA13CA-AU	13A	13C	11.1	12.4	13.7	1	1.0	1.0	22.5	18.2
P4SMA15A-AU	P4SMA15CA-AU	15A	15C	12.8	14.3	15.8	1	1.0	1.0	19.3	21.2
P4SMA16A-AU	P4SMA16CA-AU	16A	16C	13.6	15.2	16.8	1	1.0	1.0	18.2	22.5
P4SMA18A-AU	P4SMA18CA-AU	18A	18C	15.3	17.1	18.9	1	1.0	1.0	16.1	25.5
P4SMA20A-AU	P4SMA20CA-AU	20A	20C	17.1	19	21	1	1.0	1.0	14.8	27.7
P4SMA22A-AU	P4SMA22CA-AU	22A	22C	18.8	20.9	23.1	1	1.0	1.0	13.4	30.6
P4SMA24A-AU	P4SMA24CA-AU	24A	24C	20.5	22.8	25.2	1	1.0	1.0	12.3	33.2
P4SMA27A-AU	P4SMA27CA-AU	27A	27C	23.1	25.7	28.4	1	1.0	1.0	10.9	37.5
P4SMA30A-AU	P4SMA30CA-AU	30A	30C	25.6	28.5	31.5	1	1.0	1.0	9.9	41.4
P4SMA33A-AU	P4SMA33CA-AU	33A	33C	28.2	31.4	34.7	1	1.0	1.0	9.0	45.7
P4SMA36A-AU	P4SMA36CA-AU	36A	36C	30.8	34.2	37.8	1	1.0	1.0	8.2	49.9
P4SMA39A-AU	P4SMA39CA-AU	39A	39C	33.3	37.1	41	1	1.0	1.0	7.6	53.9
P4SMA43A-AU	P4SMA43CA-AU	43A	43C	36.8	40.9	45.2	1	1.0	1.0	6.9	59.3
P4SMA47A-AU	P4SMA47CA-AU	47A	47C	40.2	44.7	49.4	1	1.0	1.0	6.3	64.8
P4SMA51A-AU	P4SMA51CA-AU	51A	51C	43.6	48.5	53.6	1	1.0	1.0	5.8	70.1
P4SMA56A-AU	P4SMA56CA-AU	56A	56C	47.8	53.2	58.8	1	1.0	1.0	5.3	77
P4SMA62A-AU	P4SMA62CA-AU	62A	62C	53	58.9	65.1	1	1.0	1.0	4.8	85
P4SMA68A-AU	P4SMA68CA-AU	68A	68C	58.1	64.6	71.4	1	1.0	1.0	4.5	92
P4SMA75A-AU	P4SMA75CA-AU	75A	75C	64.1	71.3	78.8	1	1.0	1.0	4.0	103
P4SMA82A-AU	P4SMA82CA-AU	82A	82C	70.1	77.9	86.1	1	1.0	1.0	3.6	113
P4SMA91A-AU	P4SMA91CA-AU	91A	91C	77.8	86.5	95.5	1	1.0	1.0	3.3	125
P4SMA100A-AU	P4SMA100CA-AU	100A	100C	85.5	95	105	1	1.0	1.0	3.0	137
P4SMA110A-AU	P4SMA110CA-AU	110A	110C	94	105	116	1	1.0	1.0	2.7	152
P4SMA120A-AU	P4SMA120CA-AU	120A	120C	102	114	126	1	1.0	1.0	2.5	165
P4SMA130A-AU	P4SMA130CA-AU	130A	130C	111	124	137	1	1.0	1.0	2.3	179
P4SMA150A-AU	P4SMA150CA-AU	150A	150C	128	143	158	1	1.0	1.0	2.0	207
P4SMA160A-AU	P4SMA160CA-AU	160A	160C	136	152	168	1	1.0	1.0	1.9	219
P4SMA170A-AU	P4SMA170CA-AU	170A	170C	145	162	179	1	1.0	1.0	1.8	234
P4SMA180A-AU	P4SMA180CA-AU	180A	180C	154	171	189	1	1.0	1.0	1.7	246
P4SMA200A-AU	P4SMA200CA-AU	200A	200C	171	190	210	1	1.0	1.0	1.5	274
P4SMA220A-AU	P4SMA220CA-AU	220A	220C	185	209	231	1	1.0	1.0	1.3	328
P4SMA250A-AU	P4SMA250CA-AU	250A	250C	214	237	263	1	1.0	1.0	1.2	344
P4SMA300A-AU	P4SMA300CA-AU	300A	300C	256	285	315	1	1.0	1.0	1.0	414
P4SMA350A-AU	P4SMA350CA-AU	350A	350C	300	332	368	1	1.0	1.0	0.9	482
P4SMA400A-AU	P4SMA400CA-AU	400A	400C	342	380	420	1	1.0	1.0	0.8	548
P4SMA440A-AU	P4SMA440CA-AU	440A	440C	376	418	462	1	1.0	1.0	0.7	602
P4SMA480A-AU	P4SMA480CA-AU	480A	480C	408	456	504	1	1.0	1.0	0.6	658
P4SMA510A-AU	P4SMA510CA-AU	510A	510C	434	485	535	1	1.0	1.0	0.6	698
P4SMA530A-AU	P4SMA530CA-AU	530A	530C	477	503.5	556.5	1	1.0	1.0	0.6	725
P4SMA540A-AU	P4SMA540CA-AU	540A	540C	486	513	567	1	1.0	1.0	0.5	740
P4SMA550A-AU	P4SMA550CA-AU	550A	550C	495	522.5	577.5	1	1.0	1.0	0.5	760

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

Figure 1 - Peak Pulse Power Rating Curve

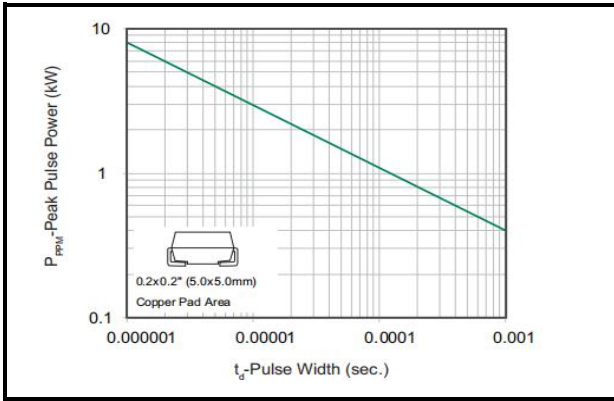


Figure 2 - Pulse Derating Curve

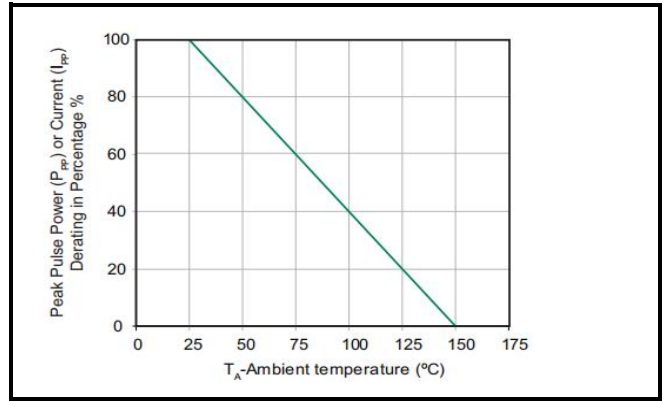


Figure 3 - Pulse Waveform

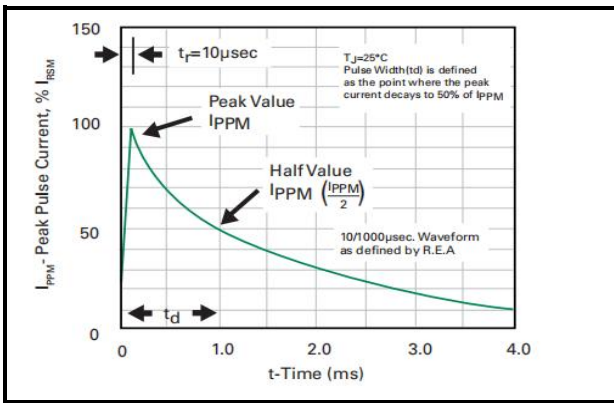


Figure 4 - Typical Junction Capacitance

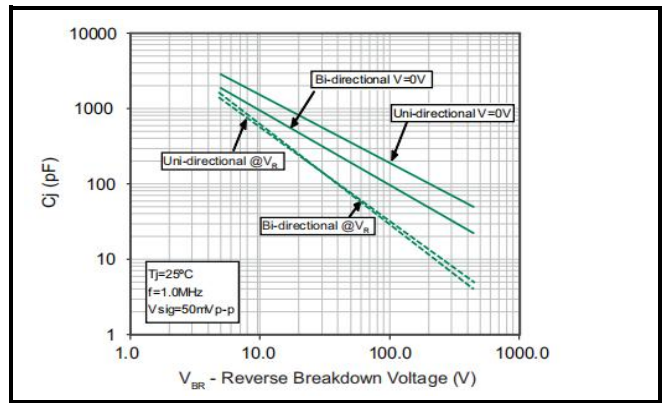


Figure 5 - Steady State Power Dissipation Derating Curve

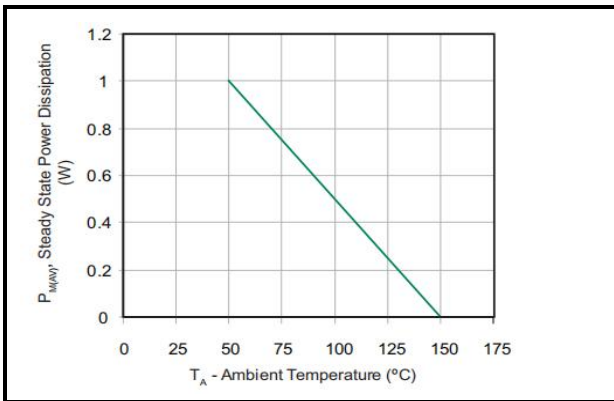
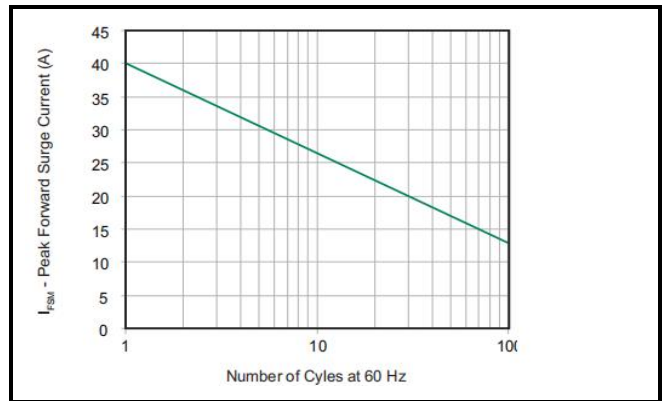


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



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