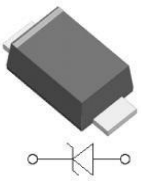
Product： P4SMFJ AU Series

Uni-directional



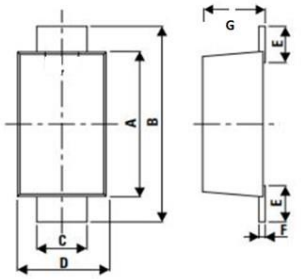
Bi-directional

SOD-123FL

Feature

- For surface mounted applications
- 400W peak pulse power capability at 10/1000μs waveform, repetition rate (duty cycle): 0.01%
- Low inductance, excellent clamping capability
- Fast response time: typically less than 1.0ns from 0 Volts to VBR min
- High temperature soldering: 265℃/10 seconds at terminals
- Component in accordance to RoHS
- AEC-Q101 qualified available

Dimension Figure :



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	2.50	3.10	0.098	0.122
B	3.40	3.85	0.134	0.154
C	0.70	1.20	0.028	0.047
D	1.50	2.00	0.059	0.079
E	0.35	0.90	0.014	0.035
F	0.05	0.26	0.002	0.010
G	0.95	1.10	0.037	0.043

Maximum Ratings (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at T_A=25℃ by 10x1000μs waveform	P_{PPM}	400	W
Power Dissipation on infinite heat sink at T_A=50℃	P_D	1	W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	℃
Thermal Resistance Junction to Lead	$R_{\theta JL}$	100	°C/W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	220	°C/W

Electrical Characteristics

P/N		Marking		VR (V)	VBR @ IT (V)		IT (mA)	IR@ VR (uA)	Ipp (A)	VC@ Ipp (V)
Uni	Bi	Uni	Bi		MIN	MAX				
P4SMFJ5.0A	P4SMFJ5.0CA	AE	WE	5	6.4	7	10	800	43.5	9.2
P4SMFJ6.0A	P4SMFJ6.0CA	AG	WG	6	6.67	7.37	10	800	38.8	10.3
P4SMFJ6.5A	P4SMFJ6.5CA	AK	WK	6.5	7.22	7.98	10	500	35.7	11.2
P4SMFJ7.0A	P4SMFJ7.0CA	AM	WM	7	7.78	8.6	10	200	33.3	12
P4SMFJ7.5A	P4SMFJ7.5CA	AP	WP	7.5	8.33	9.21	1	100	31	12.9
P4SMFJ8.0A	P4SMFJ8.0CA	AR	WR	8	8.89	9.83	1	50	29.4	13.6
P4SMFJ8.5A	P4SMFJ8.5CA	AT	WT	8.5	9.44	10.4	1	20	27.8	14.4
P4SMFJ9.0A	P4SMFJ9.0CA	AV	WV	9	10	11.1	1	10	26	15.4
P4SMFJ10A	P4SMFJ10CA	AX	WX	10	11.1	12.3	1	5	23.5	17
P4SMFJ11A	P4SMFJ11CA	AZ	WZ	11	12.2	13.5	1	1	22	18.2
P4SMFJ12A	P4SMFJ12CA	BE	XE	12	13.3	14.7	1	1	20.1	19.9
P4SMFJ13A	P4SMFJ13CA	BG	XG	13	14.4	15.9	1	1	18.6	21.5
P4SMFJ14A	P4SMFJ14CA	BK	XK	14	15.6	17.2	1	1	17.2	23.2
P4SMFJ15A	P4SMFJ15CA	BM	XM	15	16.7	18.5	1	1	16.4	24.4
P4SMFJ16A	P4SMFJ16CA	BP	XP	16	17.8	19.7	1	1	15.4	26
P4SMFJ17A	P4SMFJ17CA	BR	XR	17	18.9	20.9	1	1	14.5	27.6
P4SMFJ18A	P4SMFJ18CA	BT	XT	18	20	22.1	1	1	13.7	29.2
P4SMFJ20A	P4SMFJ20CA	BV	XV	20	22.2	24.5	1	1	12.3	32.4
P4SMFJ22A	P4SMFJ22CA	BX	XX	22	24.4	26.9	1	1	11.3	35.5
P4SMFJ24A	P4SMFJ24CA	BZ	XZ	24	26.7	29.5	1	1	10.3	38.9
P4SMFJ26A	P4SMFJ26CA	CE	YE	26	28.9	31.9	1	1	9.5	42.1
P4SMFJ28A	P4SMFJ28CA	CG	YG	28	31.1	34.4	1	1	8.8	45.4
P4SMFJ30A	P4SMFJ30CA	CK	YK	30	33.3	36.8	1	1	8.3	48.4
P4SMFJ33A	P4SMFJ33CA	CM	YM	33	36.7	40.6	1	1	7.5	53.3
P4SMFJ36A	P4SMFJ36CA	CP	YP	36	40	44.2	1	1	6.9	58.1
P4SMFJ40A	P4SMFJ40CA	CR	YR	40	44.4	49.1	1	1	6.2	64.5
P4SMFJ43A	P4SMFJ43CA	CT	YT	43	47.8	52.8	1	1	5.8	69.4
P4SMFJ45A	P4SMFJ45CA	CV	YV	45	50	55.3	1	1	5.5	72.7
P4SMFJ48A	P4SMFJ48CA	CX	YX	48	53.3	58.9	1	1	5.2	77.4
P4SMFJ51A	P4SMFJ51CA	CZ	YZ	51	56.7	62.7	1	1	4.9	82.4
P4SMFJ54A	P4SMFJ54CA	RE	ZE	54	60	66.3	1	1	4.6	87.1
P4SMFJ58A	P4SMFJ58CA	RG	ZG	58	64.4	71.2	1	1	4.3	93.6
P4SMFJ60A	P4SMFJ60CA	RK	ZK	60	66.7	73.7	1	1	4.1	96.8
P4SMFJ64A	P4SMFJ64CA	RM	ZM	64	71.1	78.6	1	1	3.9	103
P4SMFJ70A	P4SMFJ70CA	RP	ZP	70	77.8	86	1	1	3.5	113
P4SMFJ75A	P4SMFJ75CA	RR	ZR	75	83.3	92.1	1	1	3.3	121
P4SMFJ78A	P4SMFJ78CA	RT	ZT	78	86.7	95.8	1	1	3.2	126
P4SMFJ85A	P4SMFJ85CA	RV	ZV	85	94.4	104	1	1	2.9	137
P4SMFJ90A	P4SMFJ90CA	RX	ZX	90	100	111	1	1	2.7	146
P4SMFJ100A	P4SMFJ100CA	RZ	ZZ	100	111	123	1	1	2.5	162
P4SMFJ110A	P4SMFJ110CA	SE	VE	110	122	135	1	1	2.3	177
P4SMFJ120A	P4SMFJ120CA	SG	VG	120	133	147	1	1	2.1	193
P4SMFJ130A	P4SMFJ130CA	SK	VK	130	144	159	1	1	1.9	209
P4SMFJ150A	P4SMFJ150CA	SM	VM	150	167	185	1	1	1.6	243
P4SMFJ160A	P4SMFJ160CA	SP	VP	160	178	197	1	1	1.5	259
P4SMFJ170A	P4SMFJ170CA	SR	VR	170	189	209	1	1	1.5	275
P4SMFJ180A	P4SMFJ180CA	ST	VT	180	201	222	1	1	1.4	292
P4SMFJ200A	P4SMFJ200CA	SV	VV	200	224	247	1	1	1.2	324
P4SMFJ220A	P4SMFJ220CA	SX	VX	220	246	272	1	1	1.1	356
P4SMFJ250A	P4SMFJ250CA	SZ	VZ	250	279	309	1	1	1	405

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

Figure 1 - TVS Transients Clamping Waveform

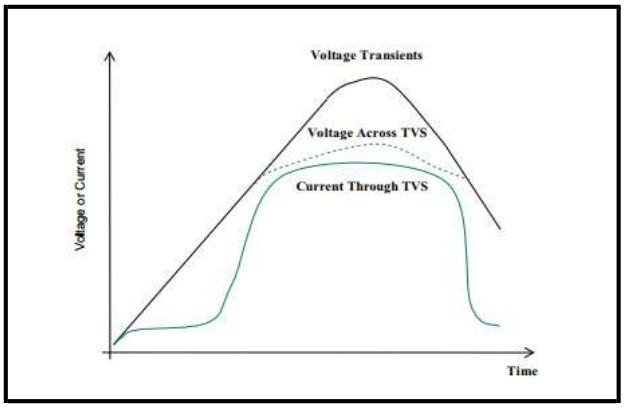


Figure 2 - Peak Pulse Power Rating Curve

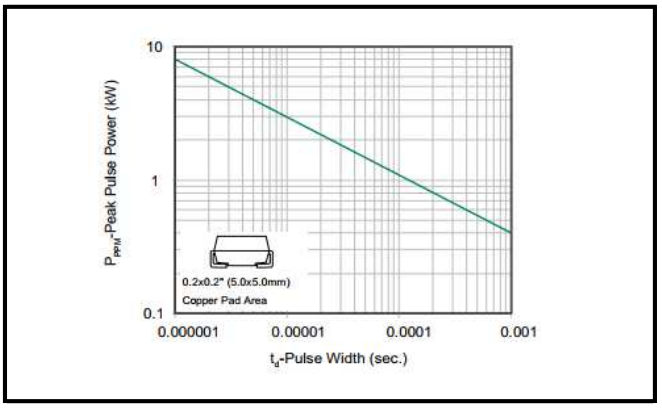


Figure 3 - Peak Pulse Power Derating Curve

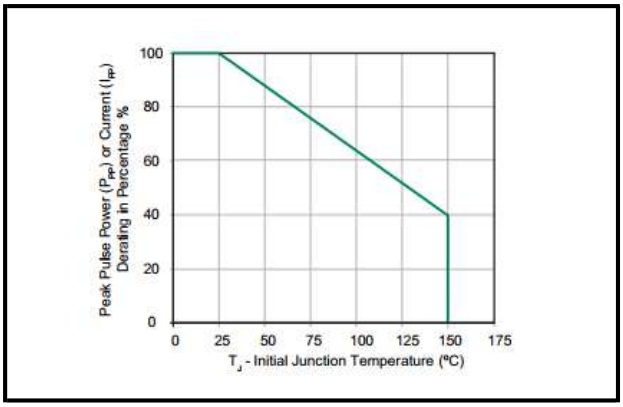


Figure 4 - Pulse Waveform - 10/1000μS

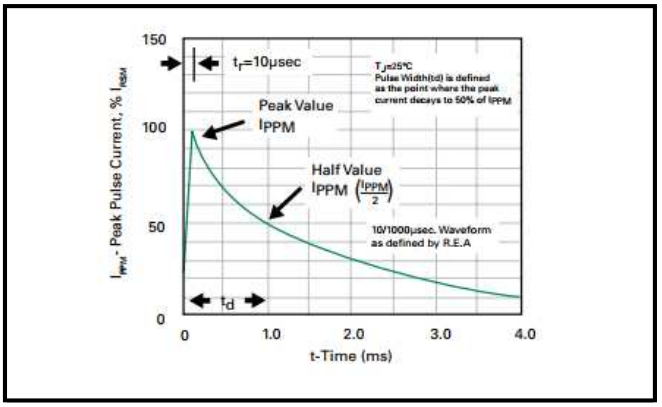


Figure 5 - Forward Voltage

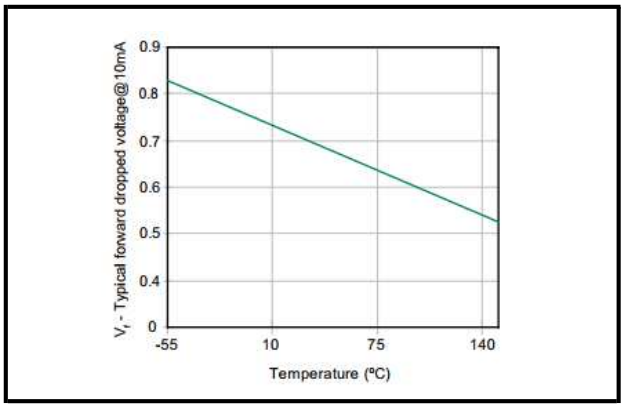


Figure 6 - Typical Junction Capacitance

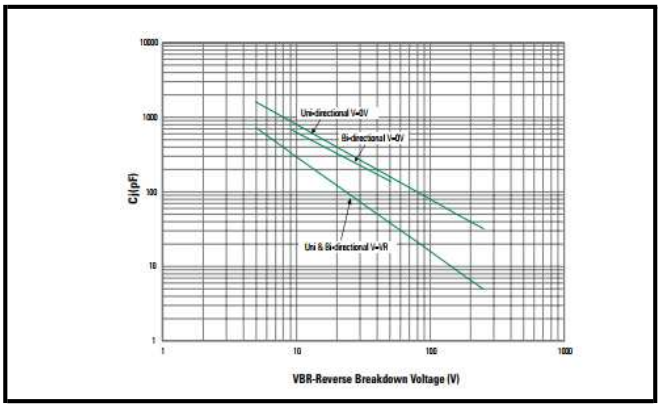


Figure 7 - Peak Forward Voltage Drop vs. Peak Forward Current

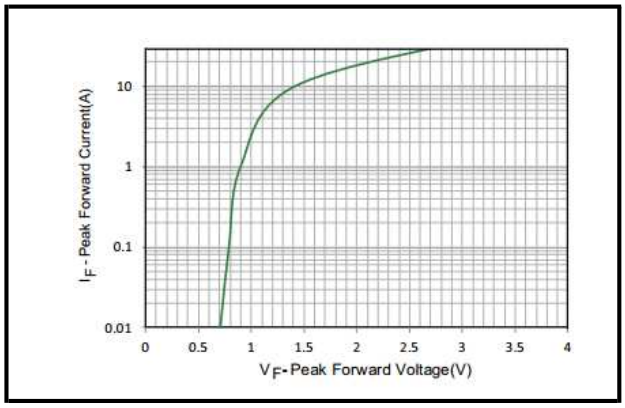
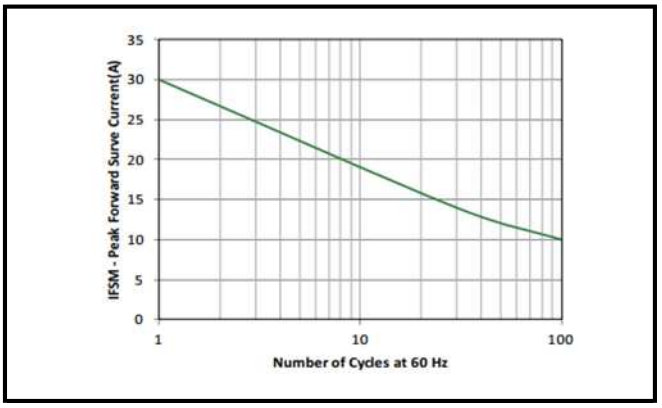


Figure 8 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



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