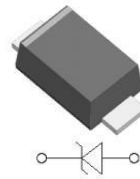


Product : SMF AU Series

Feature

- For surface mounted applications
- 200W 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

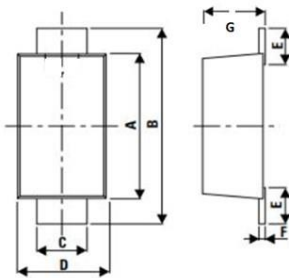
Uni-directional



Bi-directional



Dimension Figure



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	2.75	3.10	0.070	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

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at T _A =25°C by 10x1000μs waveform	P _{PPM}	200	W
Power Dissipation on infinite heat sink at T _A =50°C	P _{M(AV)}	1	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave	I _{FSM}	25	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 _{wJL}	100	°C/W
Typical Thermal Resistance Junction to Ambient	R _{wJA}	220	°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		
SMF5.0A-AU	SMF5.0CA-AU	AE	HE	5	6.4	7	10	100	200	21.7	9.2
SMF6.0A-AU	SMF6.0CA-AU	AG	HG	6	6.67	7.37	10	100	200	19.4	10.3
SMF6.5A-AU	SMF6.5CA-AU	AK	HK	6.5	7.22	7.98	10	50	80	17.9	11.2
SMF7.0A-AU	SMF7.0CA-AU	AM	HM	7	7.78	8.6	10	50	80	16.7	12
SMF7.5A-AU	SMF7.5CA-AU	AP	HP	7.5	8.33	9.21	1	2	30	15.5	12.9
SMF8.0A-AU	SMF8.0CA-AU	AR	HR	8	8.89	9.83	1	2	2	14.7	13.6
SMF8.5A-AU	SMF8.5CA-AU	AT	HT	8.5	9.44	10.4	1	2	8	13.9	14.4
SMF9.0A-AU	SMF9.0CA-AU	AV	HV	9	10	11.1	1	1.0	2.0	13.0	15.4
SMF10A-AU	SMF10CA-AU	AX	HX	10	11.1	12.3	1	1.0	1.0	11.8	17
SMF11A-AU	SMF11CA-AU	AZ	HZ	11	12.2	13.5	1	1.0	1.0	11.0	18.2
SMF12A-AU	SMF12CA-AU	BE	IE	12	13.3	14.7	1	1.0	1.0	10.1	19.9
SMF13A-AU	SMF13CA-AU	BG	IG	13	14.4	15.9	1	1.0	1.0	9.3	21.5
SMF14A-AU	SMF14CA-AU	BK	IK	14	15.6	17.2	1	1.0	1.0	8.6	23.2
SMF15A-AU	SMF15CA-AU	BM	IM	15	16.7	18.5	1	1.0	1.0	8.2	24.4
SMF16A-AU	SMF16CA-AU	BP	IP	16	17.8	19.7	1	1.0	1.0	7.7	26
SMF17A-AU	SMF17CA-AU	BR	IR	17	18.9	20.9	1	1.0	1.0	7.2	27.6
SMF18A-AU	SMF18CA-AU	BT	IT	18	20	22.1	1	1.0	1.0	6.8	29.2
SMF20A-AU	SMF20CA-AU	BV	IV	20	22.2	24.5	1	1.0	1.0	6.2	32.4
SMF22A-AU	SMF22CA-AU	BX	IX	22	24.4	26.9	1	1.0	1.0	5.6	35.5
SMF24A-AU	SMF24CA-AU	BZ	IZ	24	26.7	29.5	1	1.0	1.0	5.1	38.9
SMF26A-AU	SMF26CA-AU	CE	JE	26	28.9	31.9	1	1.0	1.0	4.8	42.1
SMF28A-AU	SMF28CA-AU	CG	JG	28	31.1	34.4	1	1.0	1.0	4.4	45.4
SMF30A-AU	SMF30CA-AU	CK	JK	30	33.3	36.8	1	1.0	1.0	4.1	48.4
SMF33A-AU	SMF33CA-AU	CM	JM	33	36.7	40.6	1	1.0	1.0	3.8	53.3
SMF36A-AU	SMF36CA-AU	CP	JP	36	40	44.2	1	1.0	1.0	3.4	58.1
SMF40A-AU	SMF40CA-AU	CR	JR	40	44.4	49.1	1	1.0	1.0	3.1	64.5
SMF43A-AU	SMF43CA-AU	CT	JT	43	47.8	52.8	1	1.0	1.0	2.9	69.4
SMF45A-AU	SMF45CA-AU	CV	JV	45	50	55.3	1	1.0	1.0	2.8	72.7
SMF48A-AU	SMF48CA-AU	CX	JX	48	53.3	58.9	1	1.0	1.0	2.6	77.4
SMF51A-AU	SMF51CA-AU	CZ	JZ	51	56.7	62.7	1	1.0	1.0	2.4	82.4
SMF54A-AU	SMF54CA-AU	DE	KE	54	60	66.3	1	1.0	1.0	2.3	87.1
SMF58A-AU	SMF58CA-AU	RG	KG	58	64.4	71.2	1	1.0	1.0	2.1	93.6
SMF60A-AU	SMF60CA-AU	RK	KK	60	66.7	73.7	1	1.0	1.0	2.1	96.8
SMF64A-AU	SMF64CA-AU	RM	KM	64	71.1	78.6	1	1.0	1.0	1.9	103
SMF70A-AU	SMF70CA-AU	RP	KP	70	77.8	86	1	1.0	1.0	1.7	113
SMF75A-AU	SMF75CA-AU	RR	KR	75	83.3	92.1	1	1.0	1.0	1.6	121
SMF78A-AU	SMF78CA-AU	RT	KT	78	86.7	95.8	1	1.0	1.0	1.6	126
SMF85A-AU	SMF85CA-AU	RV	KV	85	94.4	104	1	1.0	1.0	1.5	137
SMF90A-AU	SMF90CA-AU	RX	KX	90	100	111	1	1.0	1.0	1.2	146
SMF100A-AU	SMF100CA-AU	RZ	KZ	100	111	123	1	1.0	1.0	1.1	162
SMF110A-AU	SMF110CA-AU	SE	LE	110	122	135	1	1.0	1.0	1.1	177
SMF120A-AU	SMF120CA-AU	SG	LG	120	133	147	1	1.0	1.0	1.0	193
SMF130A-AU	SMF130CA-AU	SK	LK	130	144	159	1	1.0	1.0	1.0	209
SMF150A-AU	SMF150CA-AU	SM	LM	150	167	185	1	1.0	1.0	0.8	243
SMF160A-AU	SMF160CA-AU	SP	LP	160	178	197	1	1.0	1.0	0.8	259
SMF170A-AU	SMF170CA-AU	SR	LR	170	189	209	1	1.0	1.0	0.7	275
SMF180A-AU	SMF180CA-AU	ST	LT	180	201	222	1	1.0	1.0	0.7	292
SMF188A-AU	SMF188CA-AU	SV	LV	188	209	231	1	1.0	1.0	0.7	304
SMF200A-AU	SMF200CA-AU	SX	LX	200	224	247	1	1.0	1.0	0.6	324
SMF220A-AU	SMF220CA-AU	SZ	LZ	220	246	272	1	1.0	1.0	0.6	356
SMF250A-AU	SMF250CA-AU	TE	ME	250	279	309	1	1.0	1.0	0.5	405

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

Figure 1 - Peak Pulse Power Rating Curve

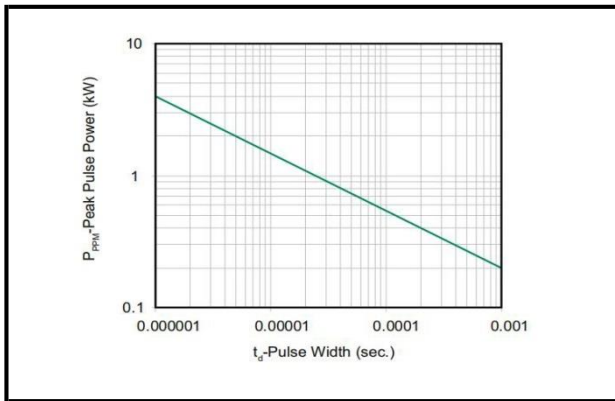


Figure 2 - Pulse Derating Curve

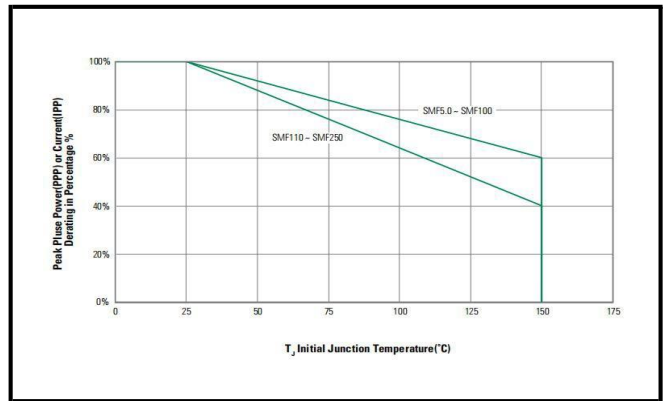


Figure 3 - Pulse Waveform

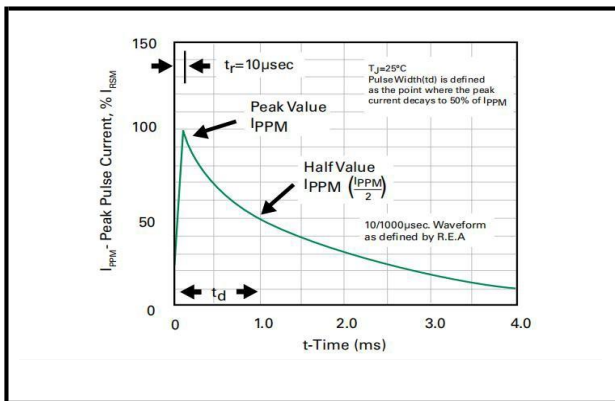


Figure 4 - Typical Junction Capacitance

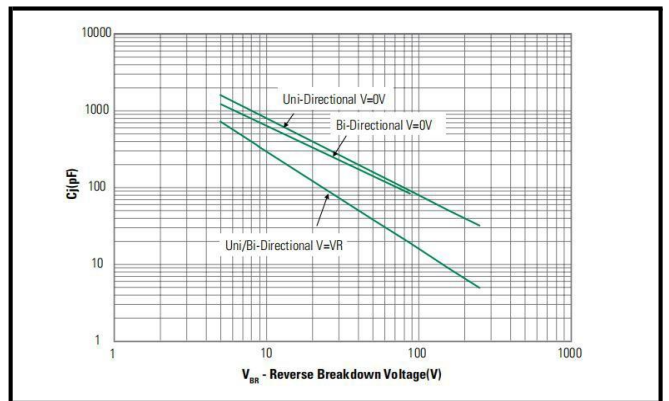


Figure 5 - Steady State Power Dissipation Derating Curve

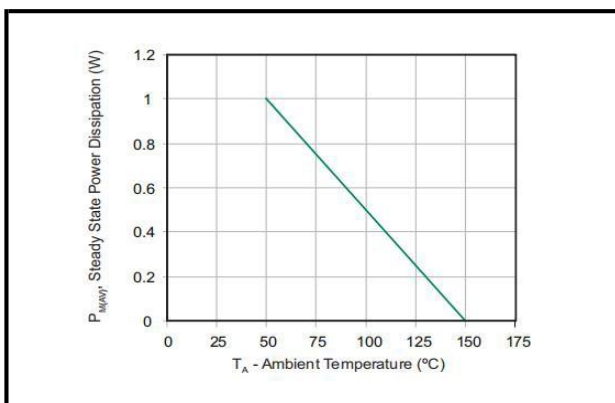


Figure 6 - Maximum Non-Repetitive Forward Surge Current Uni-Directional Only



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