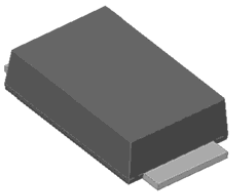
SMAFJ Series

400W Transient Voltage Suppressor

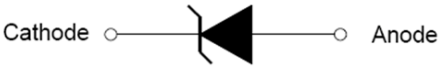
Features

- Glass passivated chip
- 400 W peak pulse power capability with a 10/1000 us waveform, repetitive rate (duty cycle):0.01 %
- Excellent clamping capability
- Low reverse leakage
- Very fast response time
- Lead and body according with RoHS standard



SMAF





Uni-directional

Symbol

Mechanical Data

- Case:SMAF Molded plastic
- Lead: Solderable per MIL-STD-750, method 2026
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end except Bipolar
- Mounting position: Any

Maximum Ratings & Characteristics Ratings at 25℃ ambient temperature unless otherwise specified.

Parameter	Symbols	Value	Unit
Peak power dissipation with a 10/1000 us waveform(1)	P_{PP}	400	W
Peak pulse current wih a 10/1000 us waveform(1)	I_{PP}	See Next Table	A
Power dissipation on infinite heatsink at TA = 50 °C	P_D	3.3	W
Peak forward surge current, 8.3 ms single half sinewave unidirectional only(2)	I_{FSM}	40	A
Typical thermal resistance junction to lead	$R_{\theta JL}$	30	℃/W
Typical thermal resistance junction to ambient	$R_{\theta JA}$	120	℃/W
Operating junction and storage temperature range	T_J , T_{STG}	-65 to +150	℃

Note:

1)Non-repetitive current pulse per Fig.5 and derated above TA= 25 °C per Fig.1 ;

2)Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum ;

Part Number		Reverse Stand-off Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Max. Clamping Voltage @ I_{PP}	Max. Peak Pulse Current	Max. Reverse Leakage @ V_{RWM}
UNI-POLAR	BI-POLAR	V_{RWM}(V)	Min.(V)	Max.(V)	I_T(mA)	$V_{C\ MAX.}$(V)	I_{PP}(A)	I_R(uA)
SMAFJ5.0A	SMAFJ5.0CA	5.0	6.40	7.00	10	9.2	43.50	800
SMAFJ6.0A	SMAFJ6.0CA	6.0	6.67	7.37	10	10.3	38.80	800
SMAFJ6.5A	SMAFJ6.5CA	6.5	7.22	7.98	10	11.2	35.70	500
SMAFJ7.0A	SMAFJ7.0CA	7.0	7.78	8.60	10	12.0	33.30	200
SMAFJ7.5A	SMAFJ7.5CA	7.5	8.33	9.21	1	12.9	31.00	100
SMAFJ8.0A	SMAFJ8.0CA	8.0	8.89	9.83	1	13.6	29.40	50
SMAFJ8.5A	SMAFJ8.5CA	8.5	9.44	10.40	1	14.4	27.80	20
SMAFJ9.0A	SMAFJ9.0CA	9.0	10.00	11.10	1	15.4	26.00	10
SMAFJ10A	SMAFJ10CA	10.0	11.10	12.30	1	17.0	23.50	5
SMAFJ11A	SMAFJ11CA	11.0	12.20	13.50	1	18.2	22.00	1
SMAFJ12A	SMAFJ12CA	12.0	13.30	14.70	1	19.9	20.10	1
SMAFJ13A	SMAFJ13CA	13.0	14.40	15.90	1	21.5	18.60	1
SMAFJ14A	SMAFJ14CA	14.0	15.60	17.20	1	23.2	17.20	1
SMAFJ15A	SMAFJ15CA	15.0	16.70	18.50	1	24.4	16.40	1
SMAFJ16A	SMAFJ16CA	16.0	17.80	19.70	1	26.0	15.40	1
SMAFJ17A	SMAFJ17CA	17.0	18.90	20.90	1	27.6	14.50	1
SMAFJ18A	SMAFJ18CA	18.0	20.00	22.10	1	29.2	13.70	1
SMAFJ20A	SMAFJ20CA	20.0	22.20	24.50	1	32.4	12.30	1
SMAFJ22A	SMAFJ22CA	22.0	24.40	26.90	1	35.5	11.30	1
SMAFJ24A	SMAFJ24CA	24.0	26.70	29.50	1	38.9	10.30	1
SMAFJ26A	SMAFJ26CA	26.0	28.90	31.90	1	42.1	9.50	1
SMAFJ28A	SMAFJ28CA	28.0	31.10	34.40	1	45.4	8.80	1
SMAFJ30A	SMAFJ30CA	30.0	33.50	36.80	1	48.4	8.30	1
SMAFJ33A	SMAFJ33CA	33.0	36.70	40.60	1	53.3	7.50	1
SMAFJ36A	SMAFJ36CA	36.0	40.00	44.20	1	58.1	6.90	1
SMAFJ40A	SMAFJ40CA	40.0	44.40	49.10	1	64.5	6.20	1
SMAFJ43A	SMAFJ43CA	43.0	47.80	52.80	1	69.4	5.80	1
SMAFJ45A	SMAFJ45CA	45.0	50.00	55.30	1	72.7	5.50	1
SMAFJ48A	SMAFJ48CA	48.0	53.30	58.90	1	77.4	5.20	1
SMAFJ51A	SMAFJ51CA	51.0	56.70	62.70	1	82.4	4.90	1
SMAFJ54A	SMAFJ54CA	54.0	60.00	66.30	1	87.1	4.60	1
SMAFJ58A	SMAFJ58CA	58.0	64.40	71.20	1	93.6	4.30	1
SMAFJ60A	SMAFJ60CA	60.0	66.70	73.70	1	96.8	4.10	1
SMAFJ64A	SMAFJ64CA	64.0	71.10	78.60	1	103.0	3.90	1
SMAFJ70A	SMAFJ70CA	70.0	77.80	86.00	1	113.0	3.50	1
SMAFJ75A	SMAFJ75CA	75.0	83.30	92.10	1	121.0	3.30	1
SMAFJ78A	SMAFJ78CA	78.0	86.70	95.80	1	126.0	3.20	1
SMAFJ85A	SMAFJ85CA	85.0	94.40	104.0	1	137.0	2.90	1
SMAFJ90A	SMAFJ90CA	90.0	100.0	111.0	1	146.0	2.70	1
SMAFJ100A	SMAFJ100CA	100.0	111.0	123.0	1	162.0	2.50	1
SMAFJ110A	SMAFJ110CA	110.0	122.0	135.0	1	177.0	2.30	1
SMAFJ120A	SMAFJ120CA	120.0	133.0	147.0	1	193.0	2.10	1
SMAFJ130A	SMAFJ130CA	130.0	144.0	159.0	1	209.0	1.90	1
SMAFJ150A	SMAFJ150CA	150.0	167.0	185.0	1	243.0	1.60	1
SMAFJ160A	SMAFJ160CA	160.0	178.0	197.0	1	259.0	1.50	1
SMAFJ170A	SMAFJ170CA	170.0	189.0	209.0	1	275.0	1.50	1
SMAFJ180A	SMAFJ180CA	180.0	201.0	222.0	1	292.0	1.40	1
SMAFJ190A	SMAFJ190CA	190.0	209.0	243.0	1	308.0	1.30	1
SMAFJ200A	SMAFJ200CA	200.0	224.0	247.0	1	324.0	1.20	1
SMAFJ210A	SMAFJ210CA	210.0	231.0	268.0	1	340.0	1.20	1
SMAFJ220A	SMAFJ220CA	220.0	246.0	272.0	1	356.0	1.10	1
SMAFJ250A	SMAFJ250CA	250.0	279.0	309.0	1	405.0	1.00	1
SMAFJ300A	SMAFJ300CA	300.0	335.0	371.0	1	486.0	0.80	1
SMAFJ350A	SMAFJ350CA	350.0	391.0	432.0	1	567.0	0.70	1

Ratings and Characteristics Curves (TA=25℃ unless otherwise noted)

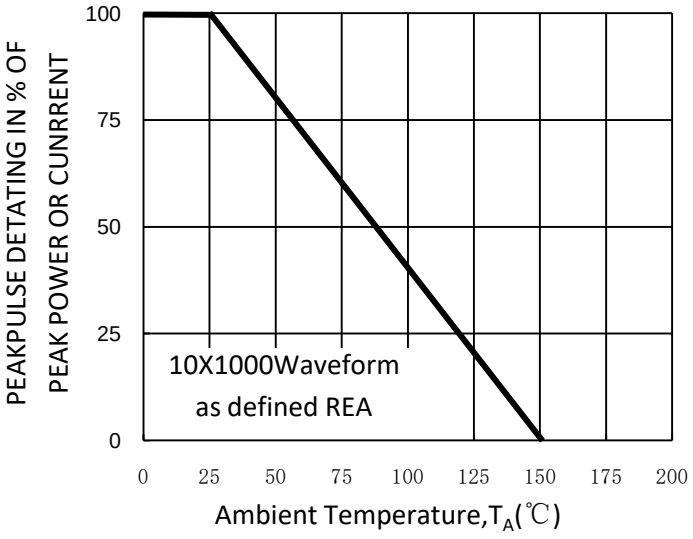


Fig. 1-Pulse Derating Curve

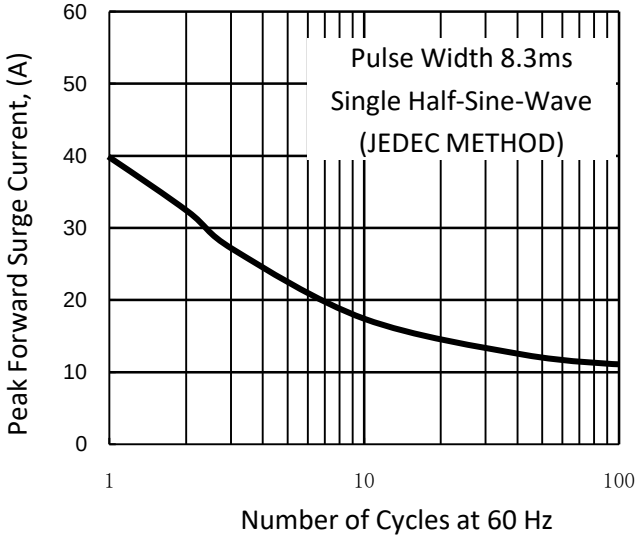


Fig. 2-Maxmum Non-Repetitive Surge Current

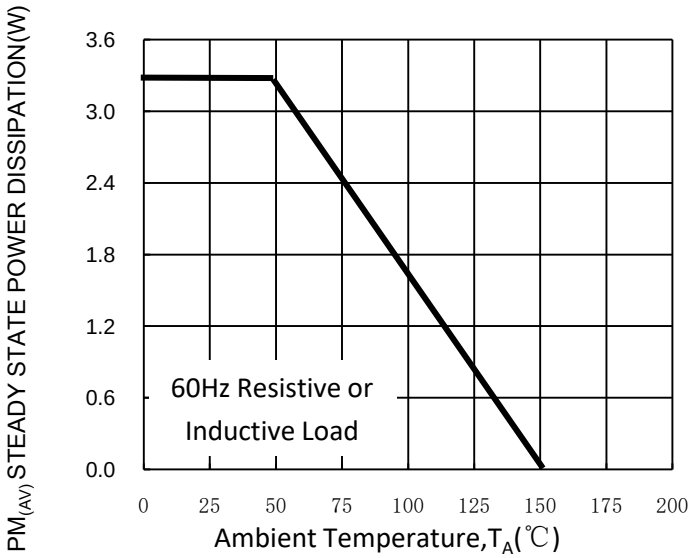


Fig. 3-Steady State Power Derating Curve

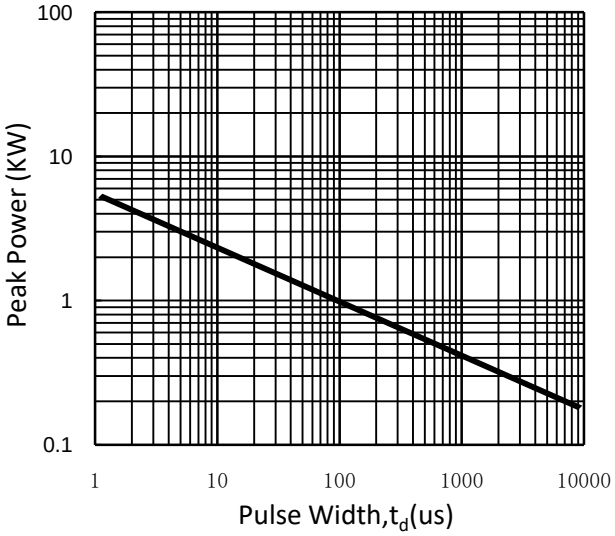


Fig. 4-Peak Pulse Power Rating Curve

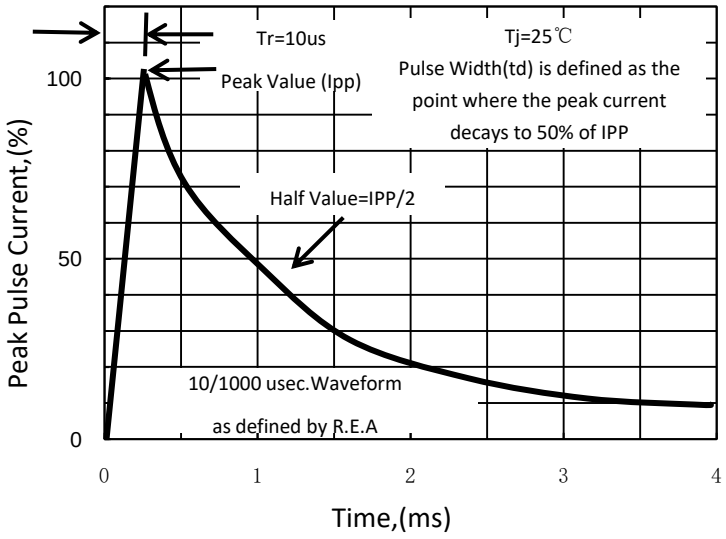


Fig. 5-Pulse Waveform

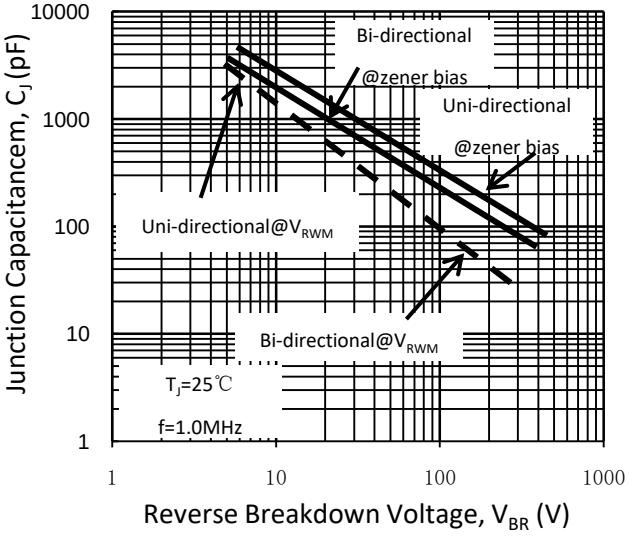
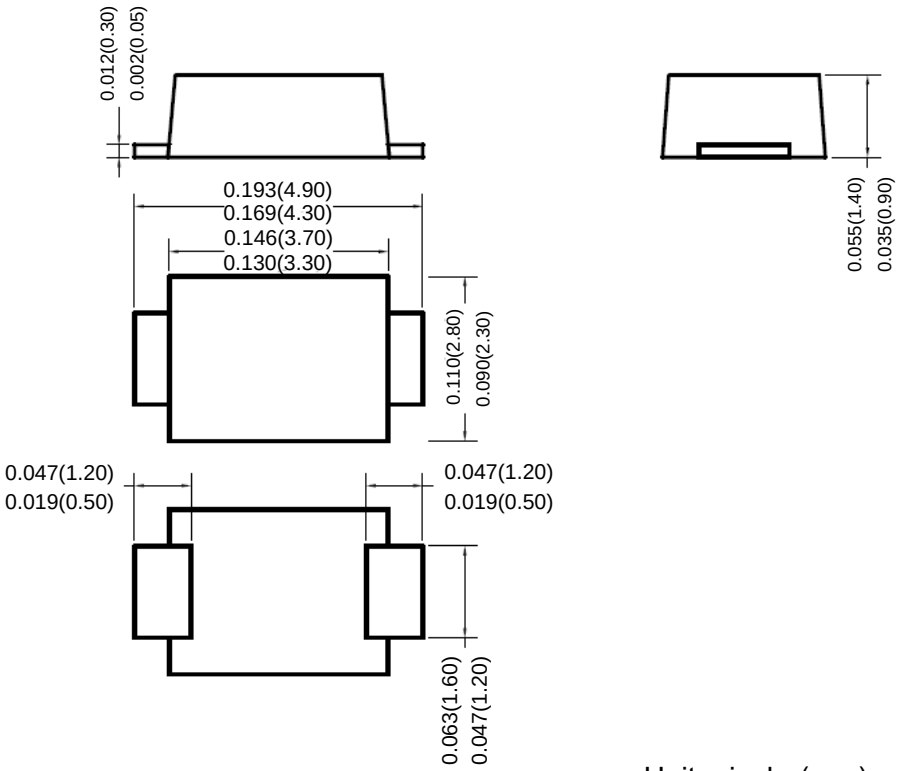


Fig. 6-Typical Junction Capacitance

Package Outline Dimensions

SMAF



Unit: inch (mm)

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