

FEATURES

- For surface mounted applications in order to optimize board space.
- Low profile package
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability

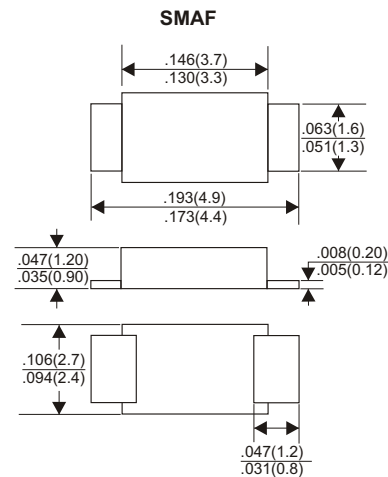
MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg 0.00095oz

VOLTAGE RANGE

5.0 to 188 Volts

400 Watts Peak Power



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
 Single phase half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

RATINGS	SYMBOL	VALUE	UNITS
Peak Power Dissipation at $T_A=25^\circ\text{C}$, $T_P=1\text{ms}$ (NOTE 1)	P_{PK}	Minimum 400	Watts
Peak Forward Surge Current at 8.3ms Single Half Sine-Wave superimposed on rated load (JEDEC method) (NOTE 3)	I_{FSM}	40	Amps
Maximum Instantaneous Forward Voltage at 25.0A for Unidirectional only	V_F	3.5	Volts
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

NOTES:

1. Non-repetitive current pulse per Fig. 3 and derated above $T_A=25^\circ\text{C}$ per Fig. 2.
2. Mounted on Copper Pad area of 5.0mm²(.013mm Thick) to each terminal.
3. 8.3ms single half sine-wave, duty cycle = 4 pulses per minute maximum.

DEVICES FOR BIPOLAR APPLICATIONS

1. For Bidirectional use C or CA Suffix for types SMAJ5.0 thru SMAJ170.
2. Electrical characteristics apply in both directions.

RATING AND CHARACTERISTIC CURVES (SMAFJ SERIES)

FIG.1-PEAK PULSE POWER DERATING CURVE



FIG.2-PULSE DERATING CURVE



FIG.3-PULSE WAVE FORM

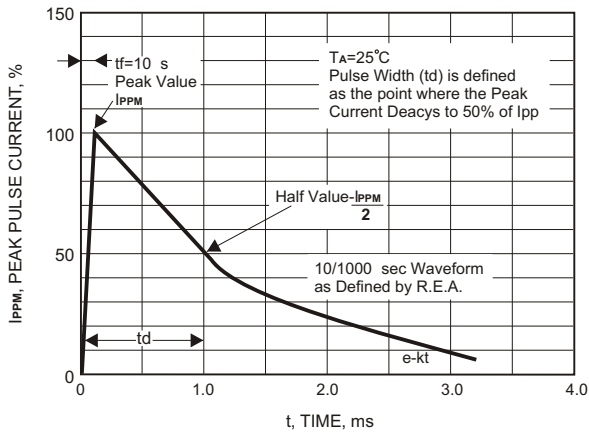


FIG.4-TYPICAL JUNCTION CAPACITANCE

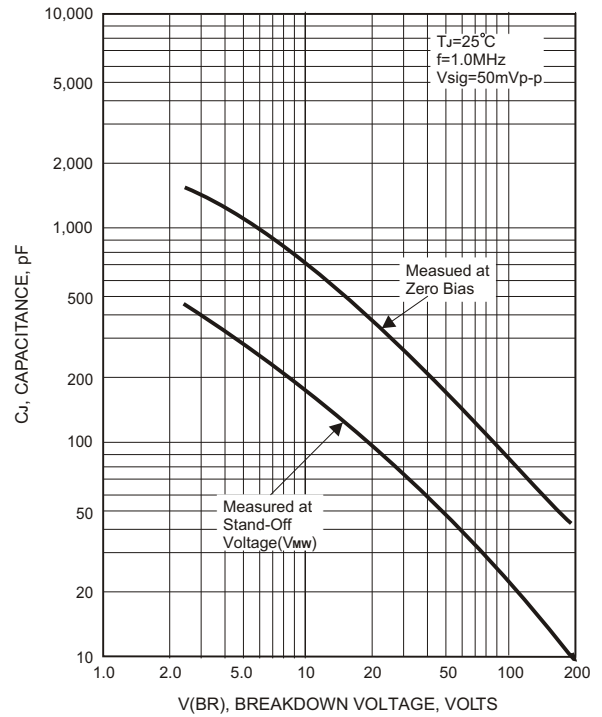
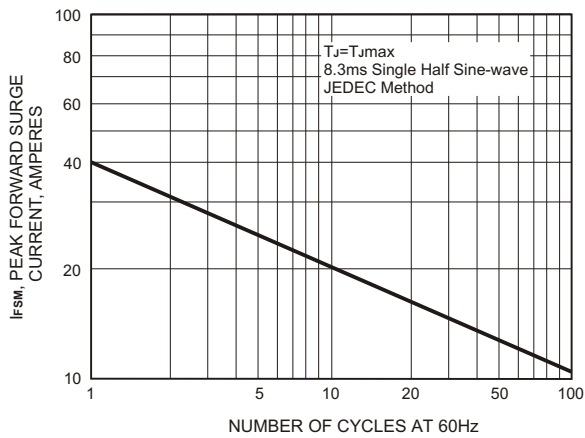


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



400 Watt Surface Mount TVS

PART NUMBER ADD C FOR BI- DIRECTIONAL See Note 1	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @ VRWM IR(μA)	MARKING
								CODE
SMAFJ5.0 (C)A	5.0	6.40	7.25	10	9.2	43.5	800	5.0 A
SMAFJ6.0 (C)A	6.0	6.67	7.67	10	10.3	38.8	800	6.0 A
SMAFJ6.5 (C)A	6.5	7.22	8.30	10	11.2	35.7	500	6.5 A
SMAFJ7.0 (C)A	7.0	7.78	8.95	10	12.0	33.3	200	7.0 A
SMAFJ7.5 (C)A	7.5	8.33	9.58	1	12.9	31.0	100	7.5 A
SMAFJ8.0 (C)A	8.0	8.89	10.23	1	13.6	29.4	50	8.0 A
SMAFJ8.5 (C)A	8.5	9.44	10.82	1	14.4	27.7	10	8.5 A
SMAFJ9.0 (C)A	9.0	10.0	11.50	1	15.4	26.0	5	9.0 A
SMAFJ10 (C)A	10	11.1	12.80	1	17.0	23.5	5	10 A
SMAFJ11 (C)A	11	12.2	14.00	1	18.2	22.0	5	11 A
SMAFJ12 (C)A	12	13.3	15.30	1	19.9	20.1	5	12 A
SMAFJ13 (C)A	13	14.4	16.50	1	21.5	18.6	5	13 A
SMAFJ14 (C)A	14	15.6	17.90	1	23.2	17.2	5	14 A
SMAFJ15 (C)A	15	16.7	19.20	1	24.4	16.4	5	15 A
SMAFJ16 (C)A	16	17.8	20.50	1	26.0	15.3	5	16 A
SMAFJ17 (C)A	17	18.9	21.70	1	27.6	14.5	5	17 A
SMAFJ18 (C)A	18	20.0	23.30	1	29.2	13.7	5	18 A
SMAFJ20 (C)A	20	22.2	25.50	1	32.4	12.3	5	20 A
SMAFJ22 (C)A	22	24.4	28.00	1	35.5	11.2	5	22 A
SMAFJ24 (C)A	24	26.7	30.70	1	38.9	10.3	5	24 A
SMAFJ26 (C)A	26	28.9	33.20	1	42.1	9.5	5	26 A
SMAFJ28 (C)A	28	31.1	35.80	1	45.4	8.8	5	28 A
SMAFJ30 (C)A	30	33.3	38.30	1	48.4	8.3	5	30 A
SMAFJ33 (C)A	33	36.7	42.20	1	53.3	7.5	5	33 A
SMAFJ36 (C)A	36	40.0	46.00	1	58.1	6.9	5	36 A
SMAFJ40 (C)A	40	44.4	51.10	1	64.5	6.2	5	40 A
SMAFJ43 (C)A	43	47.8	54.90	1	69.4	5.7	5	43 A
SMAFJ45 (C)A	45	50.0	57.50	1	72.7	5.5	5	45 A
SMAFJ48 (C)A	48	53.3	61.30	1	77.4	5.2	5	48 A
SMAFJ51 (C)A	51	56.7	65.20	1	82.4	4.9	5	51 A
SMAFJ54 (C)A	54	60.0	69.00	1	87.1	4.6	5	54 A
SMAFJ58 (C)A	58	64.4	74.10	1	93.6	4.3	5	58 A

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								CODE
SMAFJ60 (C)A	60	66.7	76.7	1	96.8	4.1	5	60A
SMAFJ64 (C)A	64	71.1	81.8	1	103	3.9	5	64A
SMAFJ70 (C)A	70	77.8	89.5	1	113	3.5	5	70A
SMAFJ75 (C)A	75	83.3	95.8	1	121	3.3	5	75A
SMAFJ78 (C)A	78	86.7	99.7	1	126	3.2	5	78A
SMAFJ85 (C)A	85	94.4	108.2	1	137	2.2	5	85A
SMAFJ90 (C)A	90	100	115.5	1	146	2.1	5	90A
SMAFJ100(C)A	100	111	128.0	1	162	1.9	5	100A
SMAFJ110(C)A	110	122	140.5	1	177	1.7	5	110A
SMAFJ120(C)A	120	133	153.0	1	193	1.6	5	120A
SMAFJ130(C)A	130	144	165.5	1	209	1.4	5	130A
SMAFJ150(C)A	150	167	192.5	1	243	1.2	5	150A
SMAFJ160(C)A	160	178	205.0	1	259	1.2	5	160A
SMAFJ170(C)A	170	189	217.5	1	275	1.09	5	170A
SMAFJ188(C)A	188	209	231.0	1	328	0.91	5	188A

Attention:

The graph is for reference only, can't be the basis for judgment.

Any and all information described or contained herein are subject to change without notice due to product/technology improvement.