

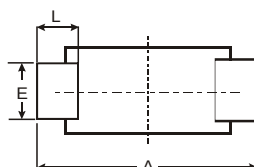
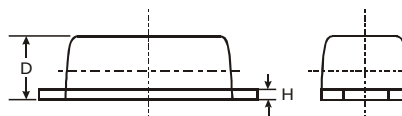
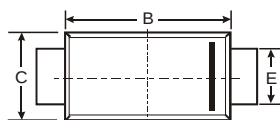
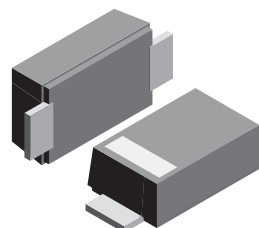
VOLTAGE RANGE: 5.0 - 440 V
POWER: 400Watts

Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: SMAF, Plastic
- Terminals: Solder plated, solderable per MIL-STD, Method2026
- Marking: Date Code and Marking Code
See Page 2
- Polarity : Color band denotes cathode end
- Weight: 0.0018 ounce, 0.064 grams



SMAF			
Dim	Min	Max	Typ
A	4.75	4.85	4.80
B	3.68	3.72	3.70
C	2.57	2.63	2.60
D	0.097	1.03	1.00
E	1.38	1.42	1.40
H	0.13	0.17	0.15
L	0.63	0.67	0.65
All Dimensions in mm			

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above $T_A = 25^\circ\text{C}$) (Note 1)	P_{PK}	400	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3)	I_{FSM}	40	A
Instantaneous Forward Voltage @ $I_{PP} = 35\text{A}$ (Notes 1, 2, & 3)	V_F	3.5	V
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

- Notes:
1. Valid provided that terminals are kept at ambient temperature.
 2. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
 3. Unidirectional units only.

TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
(Uni)	(Bi)	V _{RWM} (V)	V _{BR} MIN (V)	V _{BR} MAX (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
SMAFJ5.0	SMAFJ5.0C	5.0	6.40	7.55	10.0	9.6	41.7	800.0
SMAFJ5.0A	SMAFJ5.0CA	5.0	6.40	7.25	10.0	9.2	43.5	800.0
SMAFJ6.0	SMAFJ6.0C	6.0	6.67	8.45	10.0	11.4	35.1	800.0
SMAFJ6.0A	SMAFJ6.0CA	6.0	6.67	7.67	10.0	10.3	38.8	800.0
SMAFJ6.5	SMAFJ6.5C	6.5	7.22	9.14	10.0	12.3	32.5	500.0
SMAFJ6.5A	SMAFJ6.5CA	6.5	7.22	8.30	10.0	11.2	35.7	500.0
SMAFJ7.0	SMAFJ7.0C	7.0	7.78	9.86	10.0	13.3	30.1	200.0
SMAFJ7.0A	SMAFJ7.0CA	7.0	7.78	8.95	10.0	12.0	33.3	200.0
SMAFJ7.5	SMAFJ7.5C	7.5	8.33	10.67	1.0	14.3	28.0	100.0
SMAFJ7.5A	SMAFJ7.5CA	7.5	8.33	9.58	1.0	12.9	31.0	100.0
SMAFJ8.0	SMAFJ8.0C	8.0	8.89	11.3	1.0	15.0	26.7	50.0
SMAFJ8.0A	SMAFJ8.0CA	8.0	8.89	10.23	1.0	13.6	29.4	50.0
SMAFJ8.5	SMAFJ8.5C	8.5	9.44	11.92	1.0	15.9	25.2	20.0
SMAFJ8.5A	SMAFJ8.5CA	8.5	9.44	10.82	1.0	14.4	27.8	20.0
SMAFJ9.0	SMAFJ9.0C	9.0	10.0	12.6	1.0	16.9	23.7	10.0
SMAFJ9.0A	SMAFJ9.0CA	9.0	10.0	11.5	1.0	15.4	26.0	10.0
SMAFJ10	SMAFJ10C	10	11.1	14.1	1.0	18.8	21.3	5.0
SMAFJ10A	SMAFJ10CA	10	11.1	12.8	1.0	17.0	23.5	5.0
SMAFJ11	SMAFJ11C	11	12.2	15.4	1.0	20.1	19.9	5.0
SMAFJ11A	SMAFJ11CA	11	12.2	14.0	1.0	18.2	22.0	5.0
SMAFJ12	SMAFJ12C	12	13.3	16.9	1.0	22.0	18.2	5.0
SMAFJ12A	SMAFJ12CA	12	13.3	15.3	1.0	19.9	20.1	5.0
SMAFJ13	SMAFJ13C	13	14.4	18.2	1.0	23.8	16.8	5.0
SMAFJ13A	SMAFJ13CA	13	14.4	16.5	1.0	21.5	18.6	5.0
SMAFJ14	SMAFJ14C	14	15.6	19.8	1.0	25.8	15.5	5.0
SMAFJ14A	SMAFJ14CA	14	15.6	17.9	1.0	23.2	17.2	5.0
SMAFJ15	SMAFJ15C	15	16.7	21.1	1.0	26.9	14.9	5.0
SMAFJ15A	SMAFJ15CA	15	16.7	19.2	1.0	24.4	16.4	5.0
SMAFJ16	SMAFJ16C	16	17.8	22.6	1.0	28.8	13.9	5.0
SMAFJ16A	SMAFJ16CA	16	17.8	20.5	1.0	26.0	15.4	5.0
SMAFJ17	SMAFJ17C	17	18.9	23.9	1.0	30.5	13.1	5.0
SMAFJ17A	SMAFJ17CA	17	18.9	21.7	1.0	27.6	14.5	5.0
SMAFJ18	SMAFJ18C	18	20.0	25.3	1.0	32.2	12.4	5.0
SMAFJ18A	SMAFJ18CA	18	20.0	23.3	1.0	29.2	13.7	5.0
SMAFJ20	SMAFJ20C	20	22.2	28.1	1.0	35.8	11.2	5.0
SMAFJ20A	SMAFJ20CA	20	22.2	25.5	1.0	32.4	12.3	5.0
SMAFJ22	SMAFJ22C	22	24.4	30.9	1.0	39.4	10.2	5.0

TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
(Uni)	(Bi)	V _{RWM} (V)	V _{BR} MIN(V)	V _{BR} MAX(V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
SMAFJ22A	SMAFJ22CA	22	24.4	28.0	1.0	35.5	11.3	5.0
SMAFJ24	SMAFJ24C	24	26.7	33.8	1.0	43.0	9.3	5.0
SMAFJ24A	SMAFJ24CA	24	26.7	30.7	1.0	38.9	10.3	5.0
SMAFJ26	SMAFJ26C	26	28.9	36.6	1.0	46.6	8.6	5.0
SMAFJ26A	SMAFJ26CA	26	28.9	33.2	1.0	42.1	9.5	5.0
SMAFJ28	SMAFJ28C	28	31.1	39.4	1.0	50.0	8.0	5.0
SMAFJ28A	SMAFJ28CA	28	31.1	35.8	1.0	45.4	8.8	5.0
SMAFJ30	SMAFJ30C	30	33.3	42.2	1.0	53.5	7.5	5.0
SMAFJ30A	SMAFJ30CA	30	33.3	38.3	1.0	48.4	8.3	5.0
SMAFJ33	SMAFJ33C	33	36.7	46.5	1.0	59.0	6.8	5.0
SMAFJ33A	SMAFJ33CA	33	36.7	42.2	1.0	53.3	7.5	5.0
SMAFJ36	SMAFJ36C	36	40.0	50.7	1.0	64.3	6.2	5.0
SMAFJ36A	SMAFJ36CA	36	40.0	46.0	1.0	58.1	6.9	5.0
SMAFJ40	SMAFJ40C	40	44.4	56.3	1.0	71.4	5.6	5.0
SMAFJ40A	SMAFJ40CA	40	44.4	51.1	1.0	64.5	6.2	5.0
SMAFJ43	SMAFJ43C	43	47.7	60.5	1.0	76.7	5.2	5.0
SMAFJ43A	SMAFJ43CA	43	47.8	54.9	1.0	69.4	5.8	5.0
SMAFJ45	SMAFJ45C	45	50.0	63.3	1.0	80.3	5.0	5.0
SMAFJ45A	SMAFJ45CA	45	50.0	57.5	1.0	72.7	5.5	5.0
SMAFJ48	SMAFJ48C	48	53.3	67.5	1.0	85.5	4.7	5.0
SMAFJ48A	SMAFJ48CA	48	53.3	61.3	1.0	77.4	5.2	5.0
SMAFJ51	SMAFJ51C	51	56.7	71.8	1.0	91.1	4.4	5.0
SMAFJ51A	SMAFJ51CA	51	56.7	65.2	1.0	82.4	4.9	5.0
SMAFJ54	SMAFJ54C	54	60.0	76.0	1.0	96.3	4.2	5.0
SMAFJ54A	SMAFJ54CA	54	60.0	69.0	1.0	87.1	4.6	5.0
SMAFJ58	SMAFJ58C	58	64.4	81.6	1.0	103	3.9	5.0
SMAFJ58A	SMAFJ58CA	58	64.4	74.1	1.0	93.6	4.3	5.0
SMAFJ60	SMAFJ60C	60	66.7	84.5	1.0	107	3.7	5.0
SMAFJ60A	SMAFJ60CA	60	66.7	76.7	1.0	96.8	4.1	5.0
SMAFJ64	SMAFJ64C	64	71.1	90.1	1.0	114	3.5	5.0
SMAFJ64A	SMAFJ64CA	64	71.1	81.8	1.0	103	3.9	5.0
SMAFJ70	SMAFJ70C	70	77.8	98.6	1.0	125	3.2	5.0
SMAFJ70A	SMAFJ70CA	70	77.8	89.5	1.0	113	3.5	5.0
SMAFJ75	SMAFJ75C	75	83.0	105.7	1.0	134	3.0	5.0
SMAFJ75A	SMAFJ75CA	75	83.0	95.8	1.0	121	3.3	5.0
SMAFJ78	SMAFJ78C	78	86.0	109.8	1.0	139	2.9	5.0
SMAFJ78A	SMAFJ78CA	78	86.0	99.7	1.0	126	3.2	5.0
SMAFJ85	SMAFJ85C	85	94.0	119.2	1.0	151	2.6	5.0
SMAFJ85A	SMAFJ85CA	85	94.0	108.2	1.0	137	2.9	5.0
SMAFJ90	SMAFJ90C	90	100	126.5	1.0	160	2.5	5.0
SMAFJ90A	SMAFJ90CA	90	100	115.5	1.0	146	2.7	5.0

TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
(Uni)	(Bi)	V _{RWM} (V)	V _{BR MIN} (V)	V _{BR MAX} (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
SMAFJ100	SMAFJ100C	100	111	141.0	1.0	179	2.2	5.0
SMAFJ100A	SMAFJ100CA	100	111	128.0	1.0	162	2.5	5.0
SMAFJ110	SMAFJ110C	110	122	154.5	1.0	196	2.0	5.0
SMAFJ110A	SMAFJ110CA	110	122	140.5	1.0	177	2.3	5.0
SMAFJ120	SMAFJ120C	120	133	169.0	1.0	214	1.9	5.0
SMAFJ120A	SMAFJ120CA	120	133	153.0	1.0	193	2.1	5.0
SMAFJ130	SMAFJ130C	130	144	182.5	1.0	231	1.7	5.0
SMAFJ130A	SMAFJ130CA	130	144	165.5	1.0	209	1.9	5.0
SMAFJ150	SMAFJ150C	150	167	211.5	1.0	268	1.5	5.0
SMAFJ150A	SMAFJ150CA	150	167	192.5	1.0	243	1.6	5.0
SMAFJ160	SMAFJ160C	160	178	226.0	1.0	287	1.4	5.0
SMAFJ160A	SMAFJ160CA	160	178	205.0	1.0	259	1.5	5.0
SMAFJ170	SMAFJ170C	170	189	239.5	1.0	304	1.3	5.0
SMAFJ170A	SMAFJ170CA	170	189	217.5	1.0	275	1.5	5.0
SMAFJ180	SMAFJ180C	180	200	253.8	1.0	321	1.2	5.0
SMAFJ180A	SMAFJ180CA	180	200	230.4	1.0	290	1.4	5.0
SMAFJ190	SMAFJ190C	190	211	267.9	1.0	339	1.2	5.0
SMAFJ190A	SMAFJ190CA	190	211	243.2	1.0	306	1.3	5.0
SMAFJ200	SMAFJ200C	200	222	282.0	1.0	356	1.1	5.0
SMAFJ200A	SMAFJ200CA	200	222	256.0	1.0	322	1.2	5.0
SMAFJ210	SMAFJ210C	210	233	296.1	1.0	375	1.1	5.0
SMAFJ210A	SMAFJ210CA	210	233	268.8	1.0	339	1.2	5.0
SMAFJ220	SMAFJ220C	220	244	310.2	1.0	392	1.0	5.0
SMAFJ220A	SMAFJ220CA	220	244	281.6	1.0	355	1.1	5.0
SMAFJ250	SMAFJ250C	250	278	342.5	1.0	447	0.9	5.0
SMAFJ250A	SMAFJ250CA	250	278	309.0	1.0	403	1.0	5.0
SMAFJ300	SMAFJ300C	300	333	411.0	1.0	535	0.7	5.0
SMAFJ300A	SMAFJ300CA	300	333	371.0	1.0	484	0.8	5.0
SMAFJ350	SMAFJ350C	350	389	479.5	1.0	624	0.6	5.0
SMAFJ350A	SMAFJ350CA	350	389	432.0	1.0	565	0.7	5.0
SMAFJ400	SMAFJ400C	400	444	548.0	1.0	687	0.6	5.0
SMAFJ400A	SMAFJ400CA	400	444	494.0	1.0	645	0.6	5.0
SMAFJ440	SMAFJ440C	440	489	602.8	1.0	786	0.5	5.0
SMAFJ440A	SMAFJ440CA	440	489	543.0	1.0	710	0.6	5.0

Ratings and Characteristic Curves $T_A=25^\circ\text{C}$ unless otherwise noted

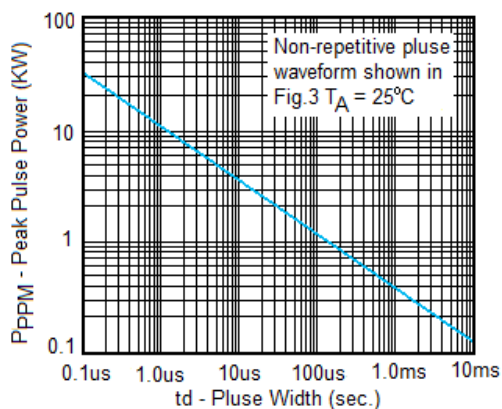


Fig. 1 Peak Pulse Power Rating

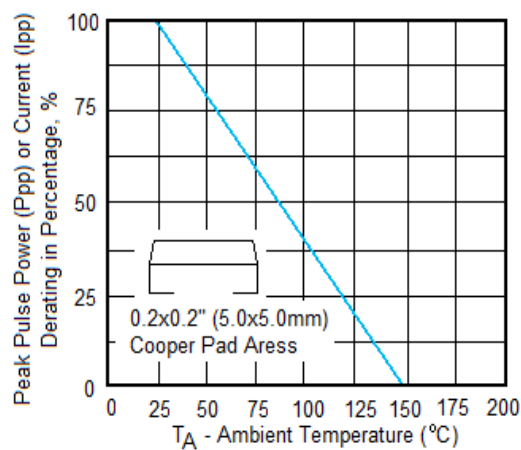


Fig.2 Pulse Derating Curve

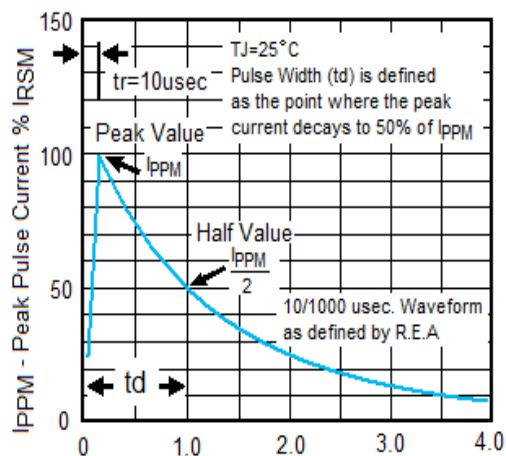


Fig.3 Pulse Waveform

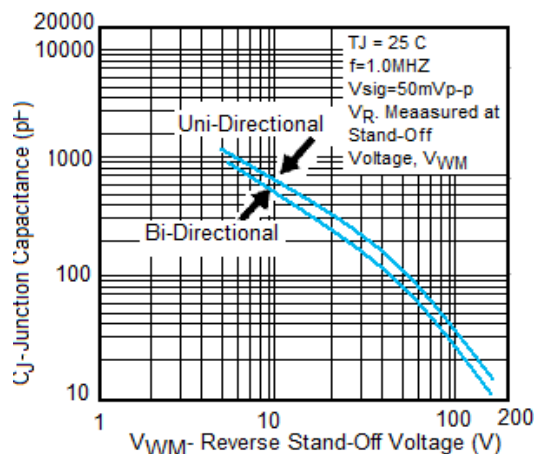


Fig. 4- Typical Junction Capacitance