

**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**

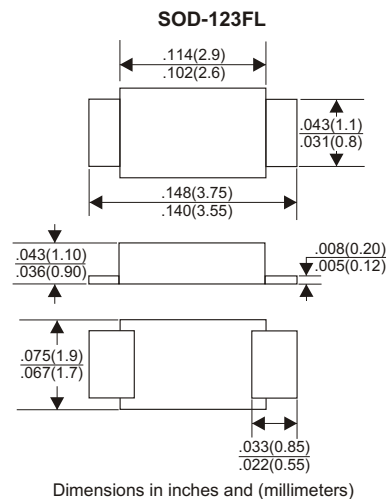
**MECHANICAL DATA**

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:15mg 0.00048oz

**VOLTAGE RANGE**

5.0 to 440 Volts

200 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 <sub>A</sub> =25°C, T <sub>P</sub> =1ms(NOTE 1)	P <sub>PK</sub>	Minimum 200	Watts
Peak Forward Surge Current at 8.3ms Single Half Sine-Wave superimposed on rated load (JEDEC method) (NOTE 3)	I <sub>FSM</sub>	30	Amps
Maximum Instantaneous Forward Voltage at 25.0A for Unidirectional only	V <sub>F</sub>	3.5	Volts
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

**NOTES:**

1. Non-repetitive current pulse per Fig. 3 and derated above T<sub>A</sub>=25°C per Fig. 2.
2. Mounted on Copper Pad area of 5.0mm<sup>2</sup>(.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 SMFJ5.0 thru SMFJ440.
2. Electrical characteristics apply in both directions.

## RATING AND CHARACTERISTIC CURVES (SMF SERIES)

FIG.1-PEAK PULSE POWER DERATING CURVE

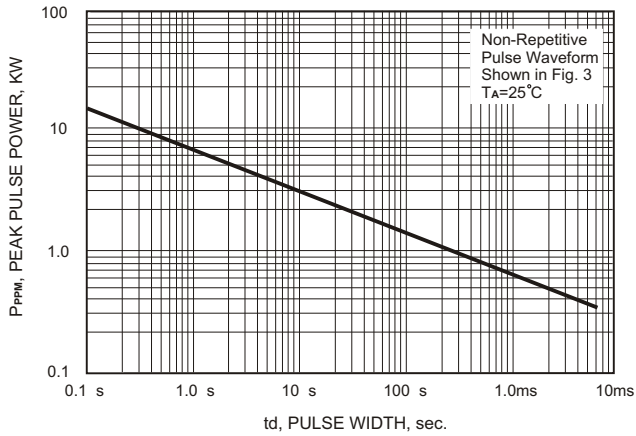


FIG.2-PULSE DERATING CURVE

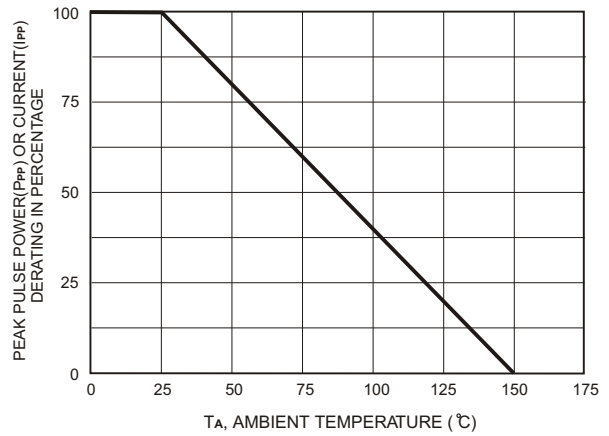


FIG.3-PULSE WAVE FORM

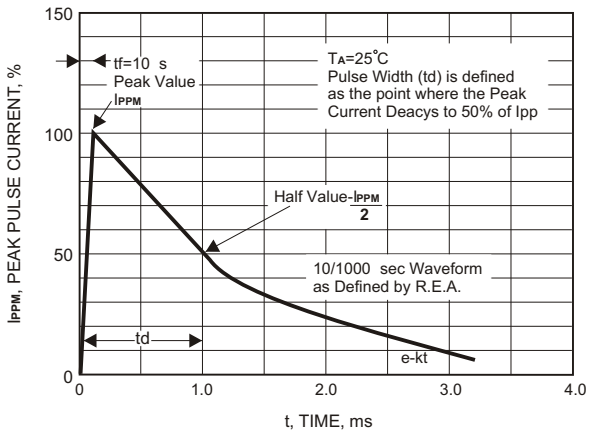
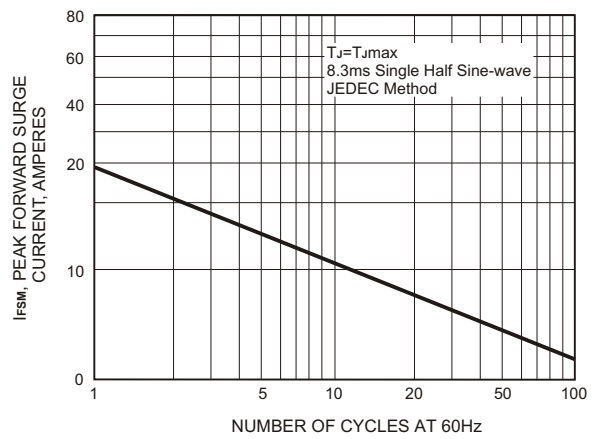


FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



# 200 Watt Surface Mount TVS

PART NUMBER ADD C FOR BI- DIRECTIONAL	$V_{RWM}$	Breakdown Voltage		Test Current	Reverse Leakage	Max. Clamp Voltage	Peak Pulse Current	Marking	
		$V_{BR} @ I_T$		$I_T$	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	$I_{PP}$		
		Min	Max					mA	$\mu A$
See Note 1	V	V	V	mA	$\mu A$	V	A	Uni	Bi
SMF5.0(C)A	5	6.4	7	10	400	9.2	21.7	AE	CAE
SMF6.0(C)A	6	6.67	7.37	10	400	10.3	19.4	AG	CAG
SMF6.5(C)A	6.5	7.22	7.98	10	250	11.2	17.9	AK	CAK
SMF7.0(C)A	7	7.78	8.6	10	100	12	16.7	AM	CAM
SMF7.5(C)A	7.5	8.33	9.21	1	50	12.9	15.5	AP	CAP
SMF8.0(C)A	8	8.89	9.83	1	25	13.6	14.7	AR	CAR
SMF8.5(C)A	8.5	9.44	10.4	1	10	14.4	13.9	AT	CAT
SMF9.0(C)A	9	10	11.1	1	5	15.4	13	AV	CAV
SMF10(C)A	10	11.1	12.3	1	2.5	17	11.8	AX	CAX
SMF11(C)A	11	12.2	13.5	1	2.5	18.2	11	AZ	CAZ
SMF12(C)A	12	13.3	14.7	1	2.5	19.9	10.1	BE	CBE
SMF13(C)A	13	14.4	15.9	1	1	21.5	9.3	BG	CBG
SMF14(C)A	14	15.6	17.2	1	1	23.2	8.6	BK	CBK
SMF15(C)A	15	16.7	18.5	1	1	24.4	8.2	BM	CBM
SMF16(C)A	16	17.8	19.7	1	1	26	7.7	BP	CBP
SMF17(C)A	17	18.9	20.9	1	1	27.6	7.2	BR	CBR
SMF18(C)A	18	20	22.1	1	1	29.2	6.8	BT	CBT
SMF20(C)A	20	22.2	24.5	1	1	32.4	6.2	BV	CBV
SMF22(C)A	22	24.4	26.9	1	1	35.5	5.6	BX	CBX
SMF24(C)A	24	26.7	29.5	1	1	38.9	5.1	BZ	CBZ
SMF26(C)A	26	28.9	31.9	1	1	42.1	4.8	CE	CCE
SMF28(C)A	28	31.1	34.4	1	1	45.4	4.4	CG	CCG
SMF30(C)A	30	33.3	36.8	1	1	48.4	4.1	CK	CCK
SMF33(C)A	33	36.7	40.6	1	1	53.3	3.8	CM	CCM
SMF36(C)A	36	40	44.2	1	1	58.1	3.4	CP	CCP
SMF40(C)A	40	44.4	49.1	1	1	64.5	3.1	CR	CCR
SMF43(C)A	43	47.8	52.8	1	1	69.4	2.9	CT	CCT
SMF45(C)A	45	50	55.3	1	1	72.7	2.8	CV	CCV
SMF48(C)A	48	53.3	58.9	1	1	77.4	2.6	CX	CCX
SMF51(C)A	51	56.7	62.7	1	1	82.4	2.4	CZ	CCZ
SMF54(C)A	54	60	66.3	1	1	87.1	2.3	DE	CDE
SMF58(C)A	58	64.4	71.2	1	1	93.6	2.1	DG	CDG
SMF60(C)A	60	66.7	73.7	1	1	96.8	1.8	DK	CDK
SMF64(C)A	64	71.1	78.6	1	1	103	1.7	DM	CDM
SMF70(C)A	70	77.8	86	1	1	113	1.5	DP	CDP
SMF75(C)A	75	83.3	92.1	1	1	121	1.4	DR	CDR
SMF78(C)A	78	86.7	95.8	1	1	126	1.4	DT	CDT
SMF85(C)A	85	94.4	104	1	1	137	1.3	DV	CDV
SMF90(C)A	90	100	111	1	1	146	1.2	DX	CDX
SMF100(C)A	100	111	123	1	1	162	1.1	DZ	CDZ
SMF110(C)A	110	122	135	1	1	177	1	EE	CEE
SMF120(C)A	120	133	147	1	1	193	0.9	EG	CEG
SMF130(C)A	130	144	159	1	1	209	0.8	EK	CEK
SMF150(C)A	150	167	185	1	1	243	0.7	EM	CEM
SMF160(C)A	160	178	197	1	1	259	0.7	EP	CEP
SMF170(C)A	170	189	209	1	1	275	0.6	ER	CER
SMF180(C)A	180	201	222	1	1	292	0.5	ET	CET
SMF200(C)A	200	224	247	1	1	324	0.5	EX	CEX
SMF220(C)A	220	246	272	1	1	356	0.5	E22	CE22
SMF250(C)A	250	279	309	1	1	405	0.5	E25	CE25
SMF300(C)A	300	335	371	1	1	486	0.45	E30	CE30
SMF350(C)A	350	391	432	1	1	567	0.4	E35	CE35
SMF400(C)A	400	447	494	1	1	648	0.35	E40	CE40
SMF440(C)A	440	492	543	1	1	713	0.3	E44	CE44

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