

**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**

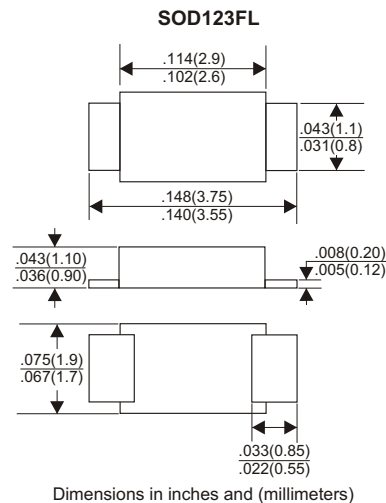
**MECHANICAL DATA**

- 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 TA=25°C, TP=1ms(NOTE 1)	PPK	Minimum 200	Watts
Peak Forward Surge Current at 8.3ms Single Half Sine-Wave superimposed on rated load (JEDEC method) (NOTE 3)	IFSM	30	Amps
Maximum Instantaneous Forward Voltage at 25.0A for Unidirectional only	VF	3.5	Volts
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150	°C

**NOTES:**

1. Non-repetitive current pulse per Fig. 3 and derated above TA=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

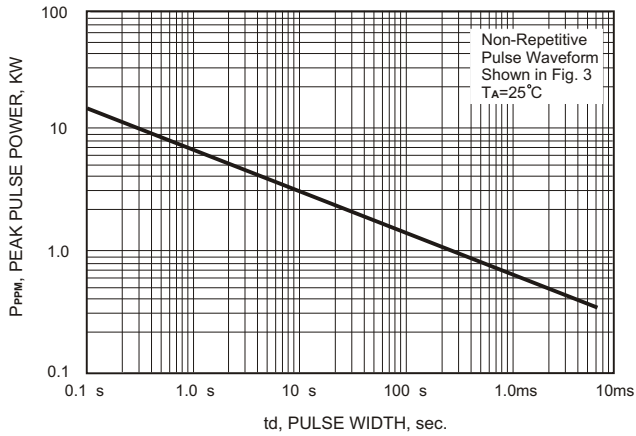


FIG.2-PULSE DERATING CURVE

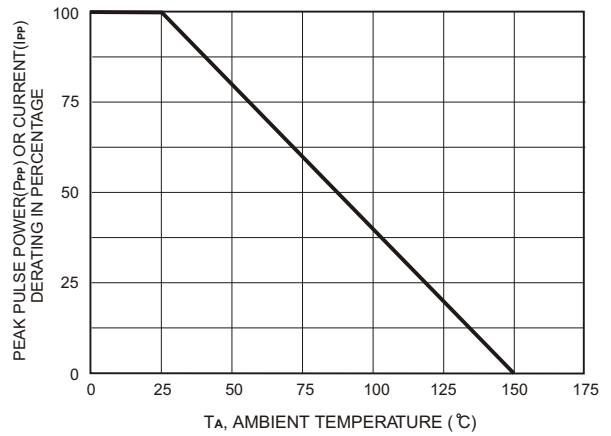


FIG.3-PULSE WAVE FORM

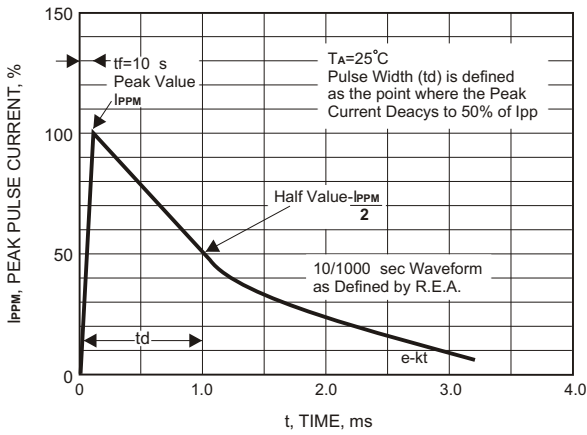
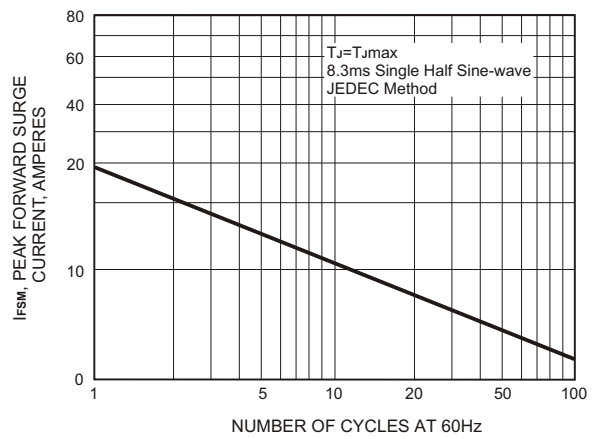


FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



# 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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