

# SMFL3.3A THRU SMFL40A

## 200W Surface Mount Transient Voltage Suppressors Ultra Low IR Type

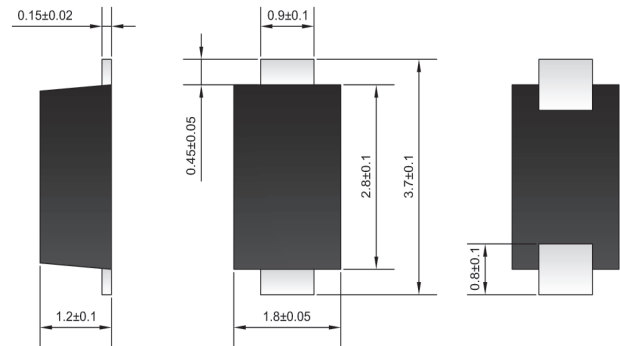
### ■ Features

- Ultra Low leakage current.
- Very fast response time.
- Excellent clamping capability.
- 200W peak pulse power capacity with a 10/1000us waveform, repetitive rate(duty cycle):0.01%.
- Uni and bidirectional unit.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

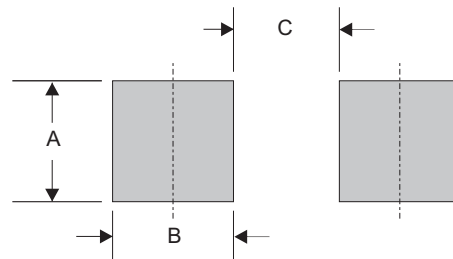
- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123FL
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : Approximated 0.010 gram

### ■ Outline SOD-123FL



Dimensions in millimeters

### ■ SOD-123FL foot print



A	B	C
0.028 (0.70)	0.028 (0.70)	0.091 (2.30)

Dimensions in inches and (millimeters)

### ■ Maximum ratings and electrical characteristics

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

Parameter	Conditions	Symbol	SMF Series	UNIT
Peak power dissipation	with a 10/1000 us waveform	$P_{PP}$	200	W
Peak power dissipation	with a 8/20 us waveform	$P_{PP}$	1000	W
Power dissipation on infinite heatsonk	at $T_L=75^\circ\text{C}$	$P_D$	0.4	W
Peak pulse current	with a 10/1000 us waveform	$I_{PP}$	See next table	A
Peak forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$	20	A
Maximum instantaneous forward voltage	at 25A for unidirectional only	$V_F$	3.5	V
Operating and Storage temperature		$T_J, T_{STG}$	-55 ~ +150	°C

Note 1. Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum

# RATINGS AND CHARACTERISTIC CURV SMFL3.3A THRU SMFL40A

## ■ Electrical characteristics

table 1

Part No.	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Peak Forward Surge Current	Maximum Clamping Voltage @I <sub>PP</sub>		Maximum Leakage Current	Marking Code
	V <sub>RWM</sub>	V <sub>BRMin</sub>	V <sub>BRMax</sub>	I <sub>T</sub>	I <sub>FSM</sub>	V <sub>C</sub>	I <sub>PP</sub>	I <sub>R</sub> @V <sub>RWM</sub>	
	Volts	Volts	Volts	mA	A	Volts	A	uA	
SMFL3.3A	3.3	5.23	5.97	10	20	8.5	23.5	30	LFD
SMFL5.0A	5.0	6.40	7.00	10	20	9.2	21.7	1	LFE
SMFL6.0A	6.0	6.67	7.37	10	20	10.3	19.4	1	LFG
SMFL6.5A	6.5	7.22	7.98	10	20	11.2	17.9	1	LFK
SMFL7.0A	7.0	7.78	8.60	10	20	12.0	16.7	1	LFM
SMFL7.5A	7.5	8.33	9.21	1.0	20	12.9	15.5	1	LFP
SMFL8.0A	8.0	8.89	9.83	1.0	20	13.6	14.7	1	LFR
SMFL8.5A	8.5	9.44	10.4	1.0	20	14.4	13.9	1	LFT
SMFL9.0A	9.0	10.0	11.1	1.0	20	15.4	13.0	0.5	LFV
SMFL10A	10	11.1	12.3	1.0	20	17.0	11.8	0.5	LFX
SMFL11A	11	12.2	13.5	1.0	20	18.2	11.0	0.5	LFZ
SMFL12A	12	13.3	14.7	1.0	20	19.9	10.1	0.5	LHE
SMFL13A	13	14.4	15.9	1.0	20	21.5	9.30	0.1	LHG
SMFL14A	14	15.6	17.2	1.0	20	23.2	8.62	0.1	LHK
SMFL15A	15	16.7	18.5	1.0	20	24.4	8.20	0.1	LHM
SMFL16A	16	17.8	19.7	1.0	20	26.0	7.69	0.1	LHP
SMFL17A	17	18.9	20.9	1.0	20	27.6	7.25	0.1	LHR
SMFL18A	18	20.0	22.1	1.0	20	29.2	6.85	0.1	LHT
SMFL19A	19	21.1	23.3	1.0	20	30.6	6.54	0.1	LHB
SMFL20A	20	22.2	24.5	1.0	20	32.4	6.17	0.1	LHV
SMFL22A	22	24.4	26.9	1.0	20	35.5	5.63	0.1	LHX
SMFL24A	24	26.7	29.5	1.0	20	38.9	5.14	0.1	LHZ
SMFL26A	26	28.9	31.9	1.0	20	42.1	4.75	0.1	LJE
SMFL28A	28	31.1	34.4	1.0	20	45.4	4.41	0.1	LJG
SMFL30A	30	33.3	36.8	1.0	20	48.4	4.13	0.1	LJK
SMFL33A	33	36.7	40.6	1.0	20	53.3	3.75	0.1	LJM
SMFL36A	36	40.0	44.2	1.0	20	58.1	3.44	0.1	LJP
SMFL40A	40	44.4	49.1	1.0	20	64.5	3.10	0.1	LJR

■ Rating and characteristic curves

