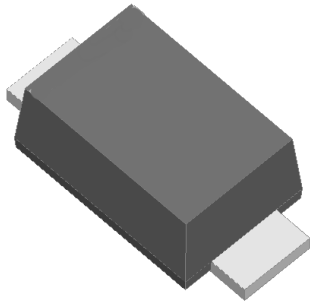


Power Dissipation : 400 Watts
Stand-Off Voltage : 5.0V~170V



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

Maximum Ratings and Electrical characteristics
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation on TA=25°C (Note 1,2,5, Fig1)	P_{PPM}	400	W
Peak Forward Surge Current (Note 3)	I_{FSM} (UNI)	40	A
Peak Pulse Current on 10/1000 us waveform (Note 1) Fig 2	I_{PPM}	see Table 1	A
Steady State Power Dissipation (Note 4)	$P_{M(AV)}$	2.0	W
Operating Junction and Storage Range	T_J, T_{STG}	-55 to +150	°C
Typical Thermal Resistance	$R_{\theta JA}$	180	°C/W

NOTES

1. Non-repetitive current pulse per Fig 3 and derated above $T_A=25^\circ\text{C}$ per Fig 2
2. Mounted on 5mm² copper pads to each terminal
3. 8.3ms single half sinewave, or equivalent square wave duty cycle=4 pulses per minutes maximum
4. lead temperature at $T_L=75^\circ\text{C}$
5. Peak pulse powe. waveform is tp=10/1000us

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Part Number		Reverse Stand-off Voltage	Breakdown Voltage			Clamping Voltage @ IPP	Peak Pulse Current	Reverse Leakage @ V _{RWM}
UNI-Polar	BI-Polar	V _{RWM} (V)	V _{BR} (V) Min.	V _{BR} (V) Max.	@IT(mA)	V _C Max.(V)	I _{PP} Max.(A)	I _R Max.(uA)
SM4F5.0A	SM4F5.0CA	5	6.40	7.00	10	9.2	43.5	400
SM4F6.0A	SM4F6.0CA	6	6.67	7.37	10	10.3	38.8	400
SM4F6.5A	SM4F6.5CA	6.5	7.22	7.98	10	11.2	35.7	250
SM4F7.0A	SM4F7.0CA	7	7.78	8.6	10	12	33.3	100
SM4F7.5A	SM4F7.5CA	7.5	8.33	9.21	1	12.9	31	25
SM4F8.0A	SM4F8.0CA	8	8.89	9.83	1	13.6	29.4	10
SM4F8.5A	SM4F8.5CA	8.5	9.44	10.4	1	14.4	27.8	5
SM4F9.0A	SM4F9.0CA	9	10	11.1	1	15.4	26	2.5
SM4F10A	SM4F10CA	10	11.1	12.3	1	17	23.5	2.5
SM4F11A	SM4F11CA	11	12.2	13.5	1	18.2	22	2.5
SM4F12A	SM4F12CA	12	13.3	14.7	1	19.9	20.1	1
SM4F13A	SM4F13CA	13	14.4	15.9	1	21.5	18.6	1
SM4F14A	SM4F14CA	14	15.6	17.2	1	23.2	17.2	1
SM4F15A	SM4F15CA	15	16.7	18.5	1	24.4	16.4	1
SM4F16A	SM4F16CA	16	17.8	19.7	1	26	15.4	1
SM4F17A	SM4F17CA	17	18.9	20.9	1	27.6	14.5	1
SM4F18A	SM4F18CA	18	20	22.1	1	29.2	13.7	1
SM4F20A	SM4F20CA	20	22.2	24.5	1	32.4	12.3	1
SM4F22A	SM4F22CA	22	24.4	26.9	1	35.5	11.3	1
SM4F24A	SM4F24CA	24	26.7	29.5	1	38.9	10.3	1
SM4F26A	SM4F26CA	26	28.9	31.9	1	42.1	9.5	1
SM4F28A	SM4F28CA	28	31.1	34.4	1	45.4	8.8	1
SM4F30A	SM4F30CA	30	33.3	36.8	1	48.4	8.3	1
SM4F33A	SM4F33CA	33	36.7	40.6	1	53.3	7.5	1
SM4F36A	SM4F36CA	36	40	44.2	1	58.1	6.9	1
SM4F40A	SM4F40CA	40	44.4	49.1	1	64.5	6.2	1
SM4F43A	SM4F43CA	43	47.8	52.8	1	69.4	5.8	1
SM4F45A	SM4F45CA	45	50	55.3	1	72.7	5.5	1
SM4F48A	SM4F48CA	48	53.3	58.9	1	77.4	5.2	1
SM4F51A	SM4F51CA	51	56.7	62.7	1	82.4	4.9	1
SM4F54A	SM4F54CA	54	60	66.3	1	87.1	4.6	1
SM4F58A	SM4F58CA	58	64.4	71.2	1	93.6	4.3	1
SM4F60A	SM4F60CA	60	66.7	73.7	1	96.8	4.1	1
SM4F64A	SM4F64CA	64	71.1	78.6	1	103	3.9	1
SM4F70A	SM4F70CA	70	77.8	86	1	113	3.5	1
SM4F75A	SM4F75CA	75	83.3	92.1	1	121	3.3	1
SM4F78A	SM4F78CA	78	86.7	95.8	1	126	3.2	1
SM4F85A	SM4F85CA	85	94.4	104	1	137	2.9	1
SM4F90A	SM4F90CA	90	100	111	1	146	2.7	1
SM4F100A	SM4F100CA	100	111	123	1	162	2.5	1
SM4F110A	SM4F110CA	110	122	135	1	177	2.3	1
SM4F120A	SM4F120CA	120	133	147	1	193	2.1	1
SM4F130A	SM4F130CA	130	144	159	1	209	1.9	1
SM4F150A	SM4F150CA	150	167	185	1	243	1.6	1
SM4F160A	SM4F160CA	160	178	197	1	259	1.5	1
SM4F170A	SM4F170CA	170	189	209	1	275	1.5	1

Ratings and Characteristics Curves (TA=25°C unless otherwise noted)

Fig.1 Peak Pulse Power Rating Curve

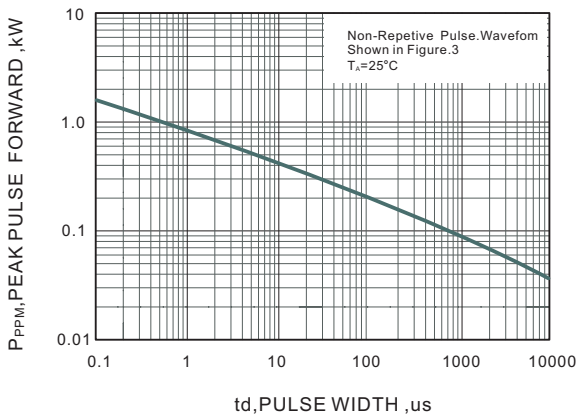


Fig.2 Forward Current Derating Curve

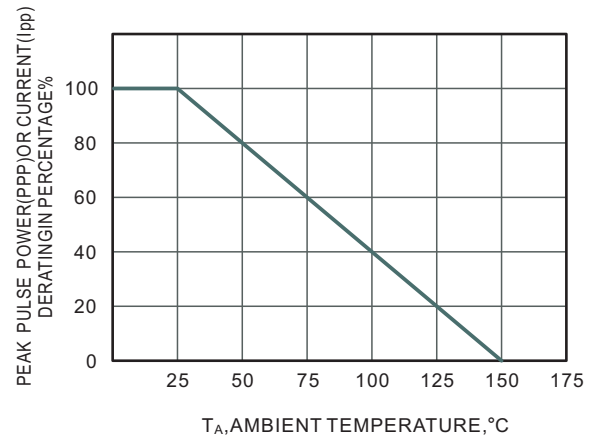


Fig.3 Pulse Waveform

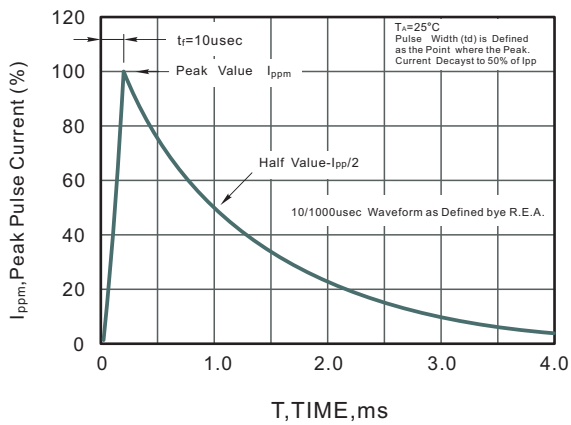
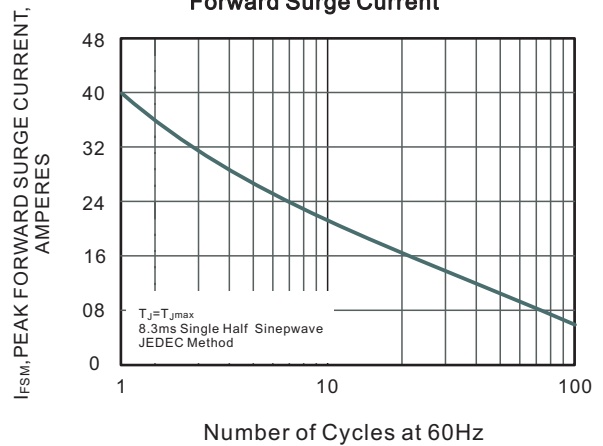
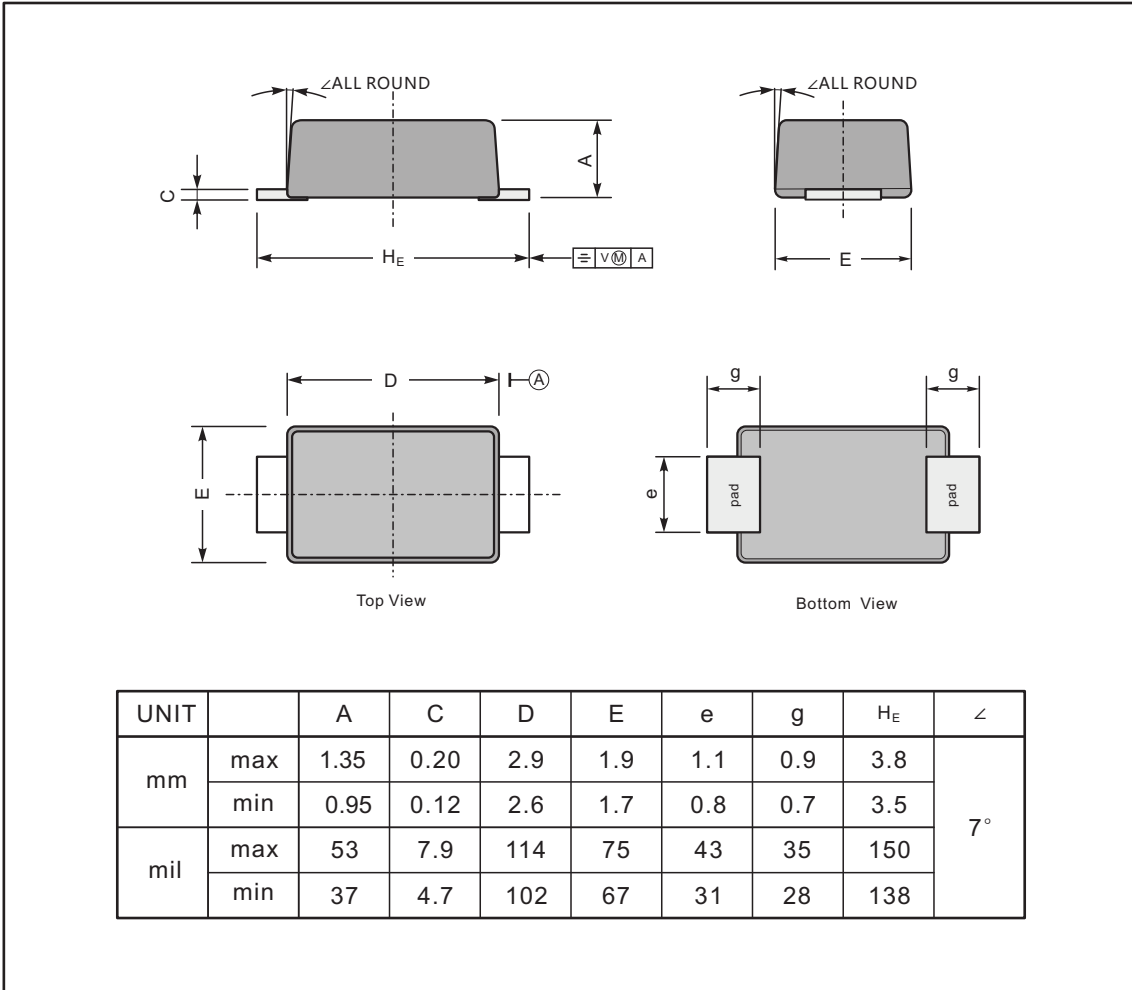


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads



The recommended mounting pad size

