

RoHS Compliant Product

A suffix of "-C" specifies halogen-free and lead-free

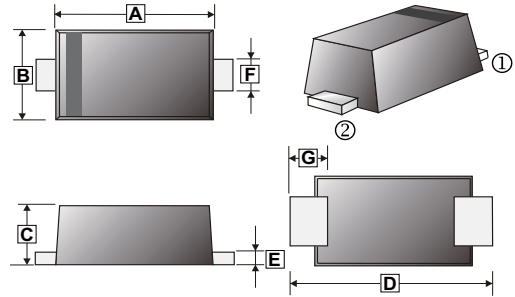
FEATURES

- For surface mounted applications
- Low profile package
- Low incremental surge resistance, excellent clamping capability.
- 200W peak pulse power capability with a 10/1000 μ s wave from, repetition rate (duty cycle):0.01%.
- High temperature soldering guaranteed: 260°C / 10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC SOD-123FL. molded plastic
- Polarity: Color band denotes positive end (cathode) except for bidirectional
- Mounting position: Any
- Weight: 0.006 ounces, 0.02 grams

SOD-123FL



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	2.90	E	0.10	0.30
B	1.80	2.00	F	0.80	1.20
C	1.55	1.25	G	0.35	0.85
D	3.50	3.90			

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123FL	2.5K	7' inch

MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Units
Non-repetitive peak pulse power dissipation with a 10/1000 μ s waveform ¹	P_{PPM}	200	W
Forward voltage @ $I_F=12A$	V_F	3.5	V
Thermal resistance junction to ambient	$R_{\theta JA}$	180	K / W
Operating and Storage Temperature Range	T_J, T_{STG}	-55~150	$^\circ\text{C}$

Notes:

1. Non-repetitive current pulse and de-rated above $T_A=25^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (Rating $T_J=25^{\circ}\text{C}$ unless otherwise specified) uni-directional only

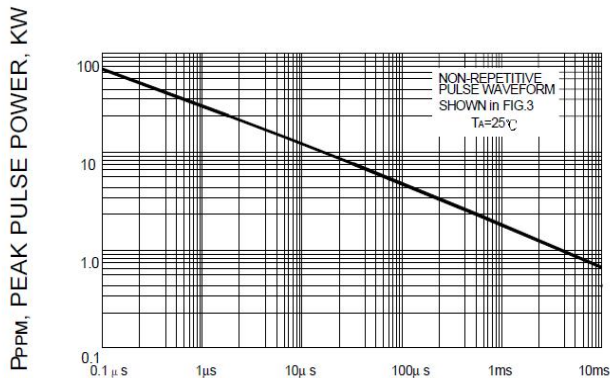
PART NUMBER	Marking Code	$V_{(BR)}^1$	I_T	V_{WM}	$I_D@V_{WM}$	I_{PPM}^2	$V_C@I_{PPM}$
		V(Min)	mA	V	μA	A	V
SDMF6V5A	AK	7.22	10	6.5	250	17.9	11.2
SDMF7V0A	AM	7.78	10	7	100	16.7	12
SDMF7V5A	AP	8.33	1	7.5	50	15.5	12.9
SDMF8V0A	AR	8.89	1	8	25	14.7	13.6
SDMF8V5A	AT	9.44	1	8.5	10	13.9	14.4
SDMF9V0A	AV	10	1	9	5	13.5	15.4
SDMF10A	AX	11.1	1	10	2.5	11.8	17
SDMF11A	AZ	12.2	1	11	2.5	11	18.2
SDMF12A	BE	13.3	1	12	2.5	10.1	19.9
SDMF13A	BG	14.4	1	13	1	9.3	21.5
SDMF14A	BK	15.6	1	14	1	8.6	23.2
SDMF15A	BM	16.7	1	15	1	8.2	24.4
SDMF16A	BP	17.8	1	16	1	7.7	26
SDMF17A	BR	18.9	1	17	1	7.2	27.6
SDMF18A	BT	20	1	18	1	5.8	29.2
SDMF20A	BV	22.2	1	20	1	6.2	32.4
SDMF22A	BX	24.4	1	22	1	5.6	35.5
SDMF24A	BZ	26.7	1	24	1	5.1	38.9
SDMF26A	CE	28.9	1	26	1	4.8	42.1
SDMF28A	CG	31.1	1	28	1	4.4	45.4
SDMF30A	CK	33.3	1	30	1	4.1	48.4
SDMF33A	CM	36.7	1	33	1	3.8	53.3
SDMF36A	CP	40	1	36	1	3.4	58.1
SDMF40A	CR	44.4	1	40	1	3.1	64.5
SDMF43A	CT	47.8	1	43	1	2.9	69.4
SDMF45A	CV	50	1	45	1	2.8	72.7
SDMF48A	CX	53.3	1	48	1	2.6	77.4
SDMF51A	CZ	56.7	1	51	1	2.4	82.4

Notes:

1. Pulse test $t_p \leq 5.0\text{ms}$
2. Surge current waveform 10/1000 μs

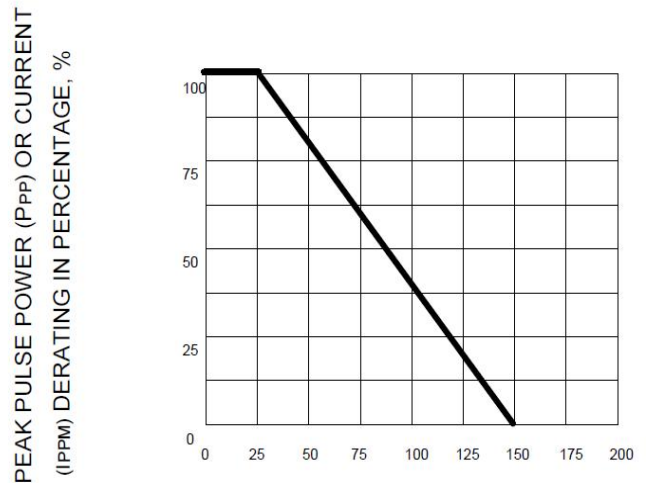
RATINGS AND CHARACTERISTIC CURVES

FIG.1 -- PEAK PULSE POWER RATING CURVE



td, PULSE WIDTH, SEC

FIG.2 -- PULSE DERATING CURVE



TA, AMBIENT TEMPERATURE, °C

FIG.3 -- PULSE WAVEFORM

