

RoHS Compliant Product

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

FEATURES

- For Surface Mounted Applications in order to Optimize Board Space
- Bi-Directional Types
- Glass Passivated Junction
- Low Inductance
- High Temperature Soldering: 260°C/10s at Terminals

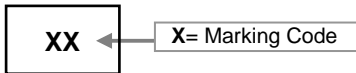
SOD-123FL



MECHANICAL DATA

- Case: SOD-123FL Molded Plastic
- Molding compound: UL Flammability Classification Rating 94V-0
- Terminals: Plated Leads Solderable Per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End
- Mounting Position: Any

MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123FL	3K	7 inch



ORDER INFORMATION

Part Number	Type
SDFL Series-C	Lead (Pb)-free and Halogen-free

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, de-rate current by 20%.)

Ratings	Symbol	Value	Units
Peak Power Dissipation @10/1000µs waveform ¹	P _{PP}	200	W
Peak Pulse Current @10/1000µs waveform ¹	I _{PP}	See Next Table.	A
Power Dissipation on infinite heatsink @T _L =75°C	P _D	0.4	W
Operating Junction & Storage Temperature Range	T _J , T _{STG}	-55~150	°C

Note:

1. Non-repetitive current pulse and de-rated above T_A=25°C.

ELECTRICAL CHARACTERISTICS (Rating $T_A=25^\circ\text{C}$ unless otherwise specified)

Part Number	Marking Code	Reverse Stand-Off Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Maximum Clamping Voltage V_C @ I_{PP}	Peak Pulse Current	Reverse Leakage I_R @ V_{RWM}
			Min.	Max.				
		V_{RWM}	V_{BR}		I_T	V_C	I_{PP}	I_R
Bi	Bi	V	V	V	mA	V	A	μA
SDFL5.0CA-C	AE	5	6.4	7	10	9.2	21.7	800
SDFL6.0CA-C	AG	6	6.7	7.4	10	10.3	19.4	800
SDFL6.5CA-C	AK	6.5	7.2	8	10	11.2	17.9	500
SDFL7.0CA-C	AM	7	7.8	8.6	10	12	16.7	200
SDFL7.5CA-C	AP	7.5	8.3	9.2	1	12.9	15.5	100
SDFL8.0CA-C	AR	8	8.9	9.8	1	13.6	14.7	50
SDFL8.5CA-C	AT	8.5	9.4	10.4	1	14.4	13.9	20
SDFL9.0CA-C	AV	9	10	11.1	1	15.4	13	10
SDFL10CA-C	AX	10	11.1	12.3	1	17	11.8	5
SDFL11CA-C	AZ	11	12.2	13.5	1	18.2	11	1
SDFL12CA-C	BE	12	13.3	14.7	1	19.9	10.1	1
SDFL13CA-C	BG	13	14.4	15.9	1	21.5	9.3	1
SDFL14CA-C	BK	14	15.6	17.2	1	23.2	8.6	1
SDFL15CA-C	BM	15	16.7	18.5	1	24.4	8.2	1
SDFL16CA-C	BP	16	17.8	19.7	1	26	7.7	1
SDFL17CA-C	BR	17	18.9	20.9	1	27.6	7.3	1
SDFL18CA-C	BT	18	20	22.1	1	29.2	6.9	1
SDFL20CA-C	BV	20	22.2	24.5	1	32.4	6.2	1
SDFL22CA-C	BX	22	24.4	26.9	1	35.5	5.6	1
SDFL24CA-C	BZ	24	26.7	29.5	1	38.9	5.1	1
SDFL26CA-C	CE	26	28.9	31.9	1	42.1	4.8	1
SDFL28CA-C	CG	28	31.1	34.4	1	45.4	4.4	1
SDFL30CA-C	CK	30	33.5	36.8	1	48.4	4.1	1
SDFL33CA-C	CM	33	36.7	40.6	1	53.3	3.8	1
SDFL36CA-C	CP	36	40	44.2	1	58.1	3.4	1
SDFL40CA-C	CR	40	44.4	49.1	1	64.5	3.1	1
SDFL43CA-C	CT	43	47.8	52.8	1	69.4	2.9	1
SDFL45CA-C	CV	45	50	55.3	1	72.7	2.8	1

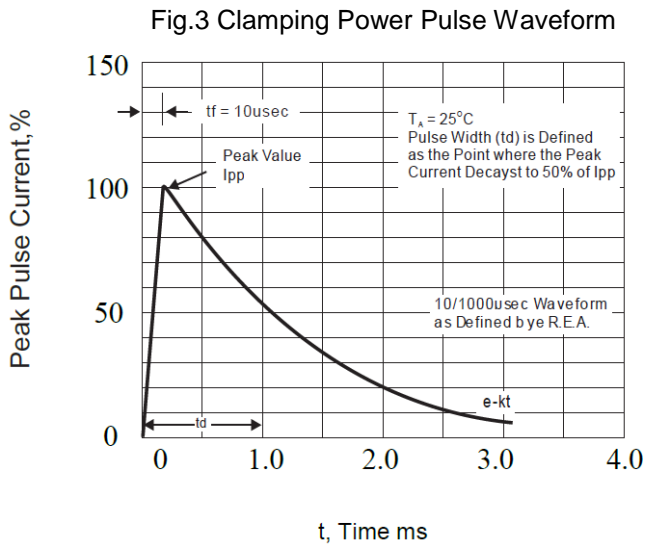
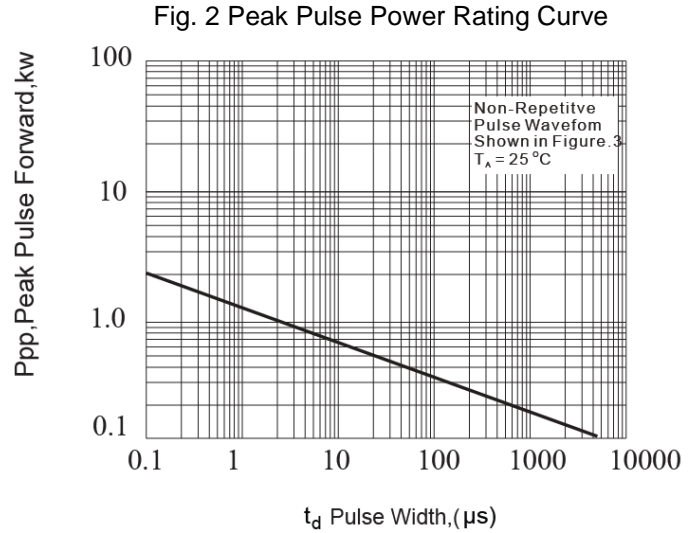
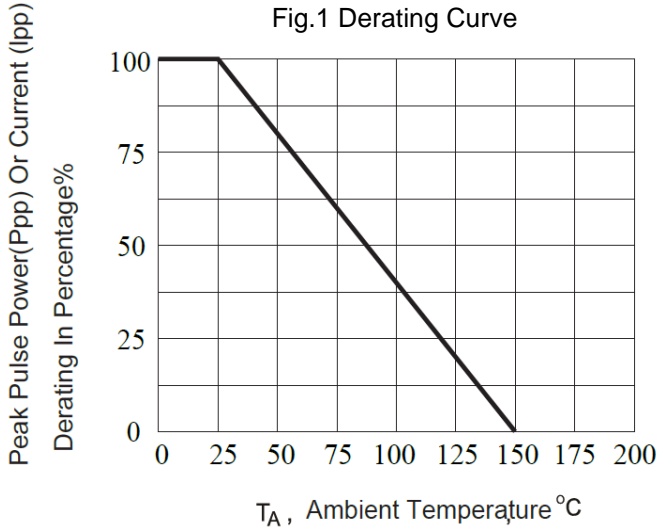
ELECTRICAL CHARACTERISTICS (Rating $T_A=25^\circ\text{C}$ unless otherwise specified)

Part Number	Marking Code	Reverse Stand-Off Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Maximum Clamping Voltage V_C @ I_{PP}	Peak Pulse Current	Reverse Leakage I_R @ V_{RWM}
			Min.	Max.				
		V_{RWM}	V_{BR}		I_T	V_C	I_{PP}	I_R
Bi	Bi	V	V	V	mA	V	A	μA
SDFL48CA-C	CX	48	53.3	58.9	1	77.4	2.6	1
SDFL51CA-C	CZ	51	56.7	62.7	1	82.4	2.4	1
SDFL54CA-C	DE	54	60	66.3	1	87.1	2.3	1
SDFL58CA-C	DG	58	64.4	71.2	1	93.6	2.1	1
SDFL60CA-C	DK	60	66.7	73.7	1	96.8	2.1	1
SDFL64CA-C	DM	64	71.1	78.6	1	103	1.9	1
SDFL70CA-C	DP	70	77.8	86	1	113	1.8	1
SDFL75CA-C	DR	75	83.3	92.1	1	121	1.7	1
SDFL78CA-C	DT	78	86.7	95.8	1	126	1.6	1
SDFL85CA-C	DV	85	94.4	104	1	137	1.5	1
SDFL90CA-C	DX	90	100	111	1	146	1.4	1
SDFL100CA-C	DZ	100	111	123	1	162	1.2	1
SDFL110CA-C	EE	110	122	135	1	177	1.1	1
SDFL120CA-C	EG	120	133	147	1	193	1	1
SDFL130CA-C	EK	130	144	159	1	209	1	1
SDFL150CA-C	EM	150	167	185	1	243	0.8	1
SDFL160CA-C	EP	160	178	197	1	259	0.8	1
SDFL170CA-C	ER	170	189	209	1	275	0.7	1
SDFL180CA-C	ET	180	201	222	1	292	0.7	1

Notes:

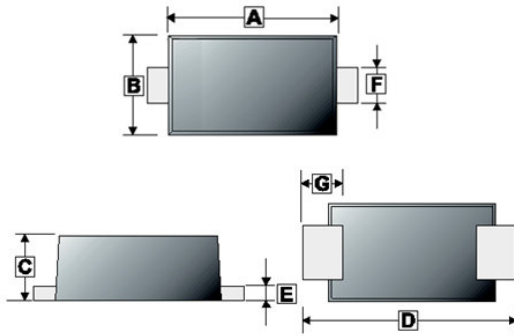
- Surge waveform: 10/1000 μs
- V_{RWM} : Stand-off voltage -- Maximum voltage that can be applied
- V_{BR} : Breakdown voltage
- V_C : Clamping voltage -- Peak voltage measured across the suppressor at a specified I_{PP}
- I_R : Reverse leakage current

RATINGS AND CHARACTERISTIC CURVES



PACKAGE OUTLINE DIMENSIONS

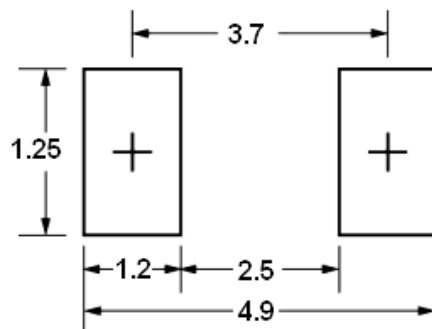
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REF.	Millimeter	
	Min.	Max.
A	2.40	3.10
B	1.40	2.10
C	0.80	1.55
D	3.30	4.00
E	0.05	0.30
F	0.50	1.35
G	0.80 TYP.	

MOUNTING PAD LAYOUT

SOD-123FL



*Dimensions in millimeters