



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.

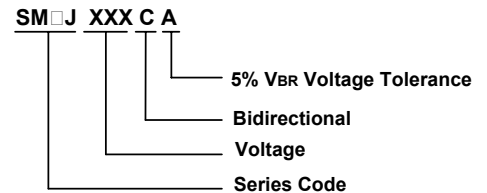


SOD-123FL

Mechanical Data

- Case: JEDEC UOD-123FL molded plastic body
- Terminals: Solderable per MIL-STD-750, Method 2026A
- Polarity: Polarity symbol marking on body
- Mounting Position: Any
- Weight: 0.00 ± 7 ounce, 0.02 grams
- Marking: Date Code and Marking Code See Page 2

Part Number Code



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)	PppM	200	W
Peak Forward Surge Current (Note 3)	FSM (UNI)	30	A
Peak Pulse Current on 10/1000 us waveform (Note 1) Fig 2	Ippm	see Table 1	A
Steady State Power Dissipation (Note 4)	Pwam	1.0	W
Operating Junction and Storage Range	Tj, Tsre	-55 to +150	°C
Typical Thermal Resistance	Rgja	180	°C/W

NOTES:

- Non-repetitive current pulse per Fig 3 and derated above Ta25°C per Fig 2.
- Mounted on 5mm copper pads to each terminal.
- 8.3ms single half sine wave, or equivalent square wave duty cycle=4 pulses per minutes maximum.
- Lead temperature at Tt=75°C.
- Peak pulse power waveform is tp=10/1000us.
- A transient suppressor is selected according to the working peak reverse voltage (Vmmu), which should be equal to or greater than the DC or continuous peak operating voltage level.



Electrical Characteristics (T_A=25°C)

Type		Marking		VRMW	Breakdown voltage		Test Current	Reverse Leakage	Max. Clamp voltage	Peak Pulse Current
					@T					
					Min	Max	T	IR @VRW	M VC @ IPP	IPP
Uni	Bi	Uni	Bi	V	V	V	mA	μA	V	A
SMF5.0A	SMF5.0C	AE	NE	5	6.4	7	10	400	9.2	21.7
SMF6.0A	SMF6.0C	AG	NG	6	6.67	7.37	10	400	10.3	19.4
SMF6.5A	SMF6.5C	AK	NK	6.5	7.22	7.98	10	250	11.2	17.9
SMF7.0A	SMF7.0C	AM	NM	7	7.78	8.6	10	100	12	16.7
SMF7.5A	SMF7.5C	AP	NP	7.5	8.33	9.21	1	50	12.9	15.5
SMF8.0A	SMF8.0C	AR	NR	8	8.89	9.83	1	25	13.6	14.7
SMF8.5A	SMF8.5C	AT	NT	8.5	9.44	10.4	1	10	14.4	13.9
SMF9.0A	SMF9.0C	AV	NV	9	10	11.1	1	5	15.4	13
SMF10A	SMF10C	AX	NX	10	11.1	12.3	1	2.5	17	11.8
SMF11A	SMF11C	AZ	NZ	11	12.2	13.5	1	2.5	18.2	11
SMF12A	SMF12C	BE	OE	12	13.3	14.7	1	2.5	19.9	10.1
SMF13A	SMF13C	BG	OG	13	14.4	15.9	1	1	21.5	9.3
SMF14A	SMF14C	BK	OK	14	15.6	17.2	1	1	23.2	8.6
SMF15A	SMF15C	BM	OM	15	16.7	18.5	1	1	24.4	8.2
SMF16A	SMF16C	BP	OP	16	17.8	19.7	1	1	26	7.7
SMF17A	SMF17C	BR	OR	17	18.9	20.9	1	1	27.6	7.2
SMF18A	SMF18C	BT	OT	18	20	22.1	1	1	29.2	6.8
SMF20A	SMF20C	BV	OV	20	22.2	24.5	1	1	32.4	6.2
SMF22A	SMF22C	BX	OX	22	24.4	26.9	1	1	35.5	5.6
SMF24A	SMF24C	BZ	OZ	24	26.7	29.5	1	1	38.9	5.1
SMF26A	SMF26C	CE	PE	26	28.9	31.9	1	1	42.1	4.8
SMF28A	SMF28C	CG	PG	28	31.1	34.4	1	1	45.4	4.4
SMF30A	SMF30C	CK	PK	30	33.3	36.8	1	1	48.4	4.1
SMF33A	SMF33C	CM	PM	33	36.7	40.6	1	1	53.3	3.8
SMF36A	SMF36C	CP	PP	36	40	44.2	1	1	58.1	3.4
SMF40A	SMF40C	CR	PR	40	44.4	49.1	1	1	64.5	3.1
SMF43A	SMF43C	CT	PT	43	47.8	52.8	1	1	69.4	2.9
SMF45A	SMF45C	CV	PV	45	50	55.3	1	1	72.7	2.8
SMF48A	SMF48C	CX	PX	48	53.3	58.9	1	1	77.4	2.6
SMF51A	SMF51C	CZ	PZ	51	56.7	62.7	1	1	82.4	2.4
SMF54A	SMF54C	DE	PA	54	60	66.3	1	1	87.1	2.3
SMF58A	SMF58C	DG	PC	58	64.4	71.2	1	1	93.6	2.1
SMF60A	SMF60C	DK	CDK	60	66.7	73.7	1	1	96.8	1.8
SMF64A	SMF64C	DM	CDM	64	71.1	78.6	1	1	103	1.7
SMF70A	SMF70C	DP	CDP	70	77.8	86	1	1	113	1.5
SMF75A	SMF75C	DR	CDR	75	83.3	92.1	1	1	121	1.4
SMF78A	SMF78C	DT	CDT	78	86.7	95.8	1	1	126	1.4
SMF85A	SMF85C	DV	CDV	85	94.4	104	1	1	137	1.3
SMF90A	SMF90C	DX	CDX	90	100	111	1	1	146	1.2
SMF100A	SMF100C	DZ	CDZ	100	111	123	1	1	162	1.1
SMF110A	SMF110C	EE	CEE	110	122	135	1	1	177	1
SMF120A	SMF120C	EG	CEG	120	133	147	1	1	193	0.9
SMF130A	SMF130C	EK	CEK	130	144	159	1	1	209	0.8
SMF150A	SMF150C	EM	CEM	150	167	185	1	1	243	0.7
SMF160A	SMF160C	EP	CEP	160	178	197	1	1	259	0.7
SMF170A	SMF170C	ER	CER	170	189	209	1	1	275	0.6
SMF180A	SMF180C	ET	CET	180	201	222	1	1	292	0.5
SMF190A	SMF190C	EV	CEV	190	211	232	1	1	308	0.5
SMF200A	SMF200C	EX	CEX	200	224	247	1	1	324	0.5
SMF220A	SMF220C	E22	CE22	220	246	272	1	1	356	0.5
SMF250A	SMF250C	E25	CE25	250	279	309	1	1	405	0.5
SMF300A	SMF300C	E30	CE30	300	335	371	1	1	486	0.45
SMF350A	SMF350C	E35	CE35	350	391	432	1	1	567	0.4
SMF400A	SMF400C	E40	CE40	400	447	494	1	1	648	0.35
SMF440A	SMF440C	E44	CE44	440	492	543	1	1	713	0.3



Typical Characteristics

Fig.1 Peak Pulse Power Rating Curve

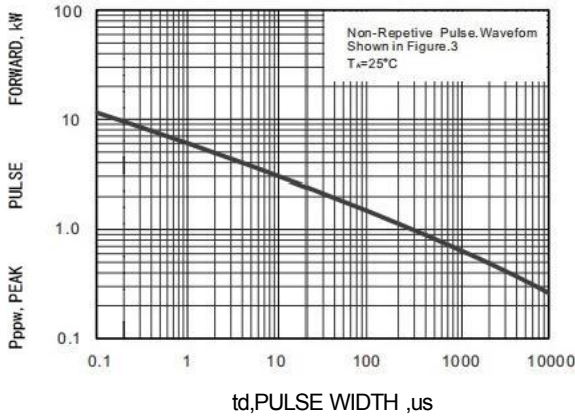


Fig.2 Forward Current Derating Curve

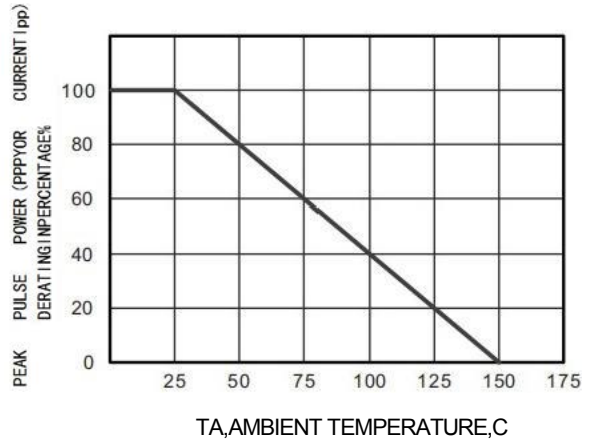


Fig.3 Pulse Waveform

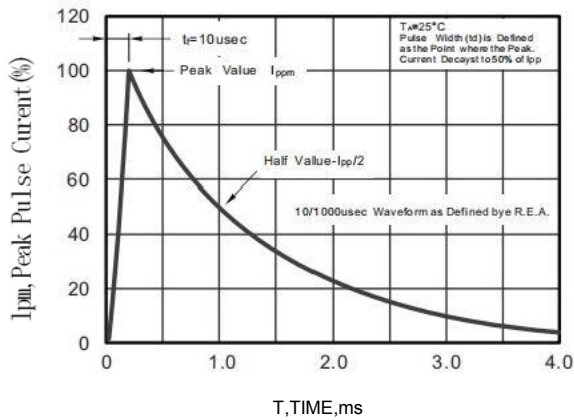
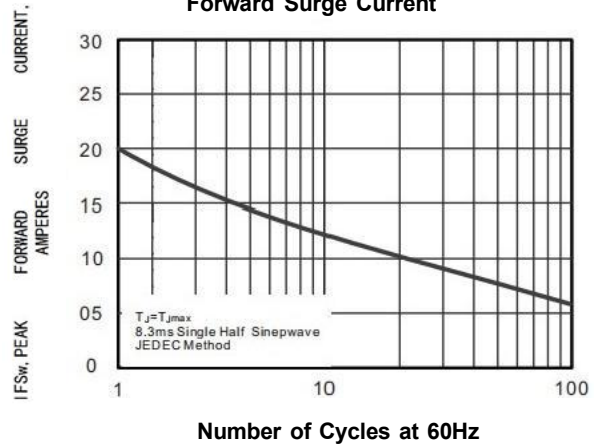
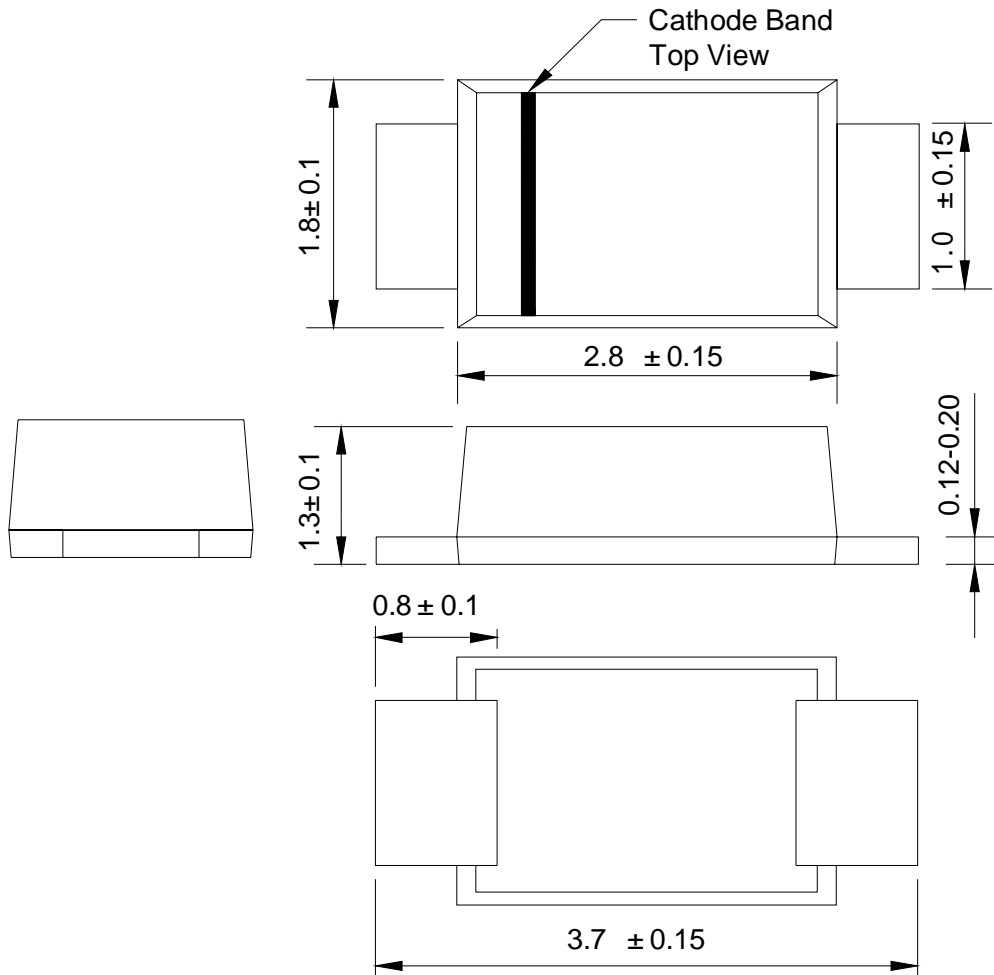


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





SOD-123FL Package Outline Dimensions





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