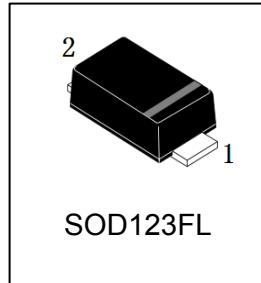


Reverse Voltage 20 to 200V Forward Current 2.0A

FEATURES

- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * Low power loss,high efficiency
- * For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
- * Guardring for over voltage protection
- * High temperature soldering guaranteed: 260°C/10 seconds at terminals



Mechanical Data

Case: SOD123-FL/MINI SMA

molded plastic over sky die

Terminals: Plated leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position Any

Weight 0.0155 g

Handling precautinNone



We declare that the material of product is Haloggen free (green epoxy compound)

1.Electrical Characteristic

Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	LMBR 220FT1G	LMBR 230FT1G	LMBR 240FT1G	LMBR 250FT1G	LMBR 260FT1G	LMBR 280FT1G	LMBR 2100FT1G	LMBR 2150FT1G	LMBR 2200FT1G	Unit
device marking code		22	23	24	25	26	28	210	215	220	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current at $T_C = 75^\circ C$	$I_{F(AV)}$	2.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50									A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	170									°C/W
Operating junction temperature range	T_J	-55 to +150									°C
storage temperature range	T_{STG}	-65 to +175									°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	LMBR 220FT1G	LMBR 230FT1G	LMBR 240FT1G	LMBR 250FT1G	LMBR 260FT1G	LMBR 280FT1G	LMBR 2100FT1G	LMBR 2150FT1G	LMBR 2200FT1G	Unit
Maximum instantaneous forward voltage at 2.0A	V_F	0.50			0.70		0.85		0.9	0.92	V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ C$ $T_j = 100^\circ C$	I_R	0.5 20									mA
Typical junction capacitance at 4.0V, 1MHz	C_J	160									PF

NOTES:

1. 8.0mm² (.013mm thick) land areas

2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

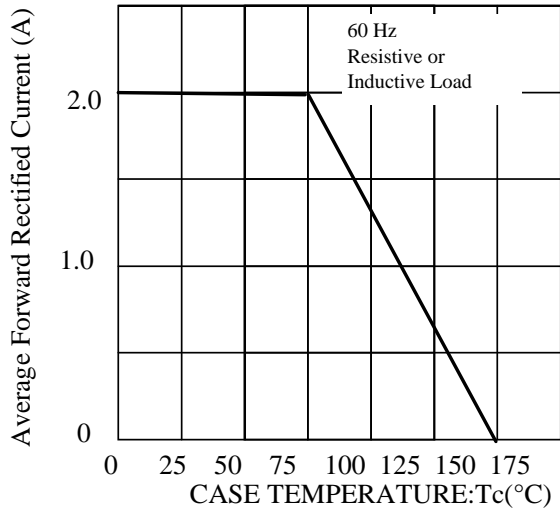


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

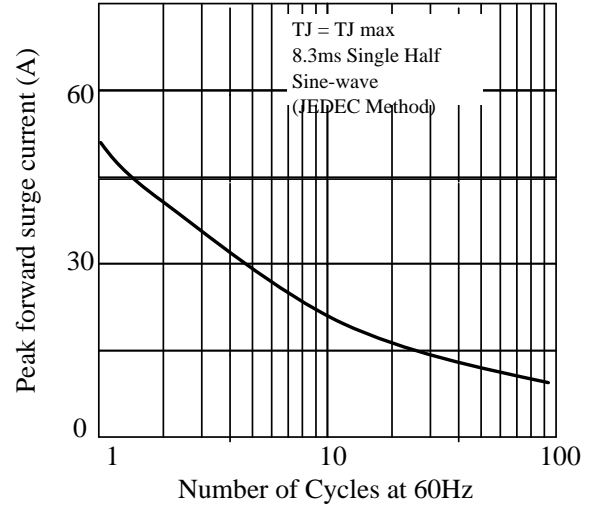


Fig 3. - Typical Instantaneous Forward Characteristics

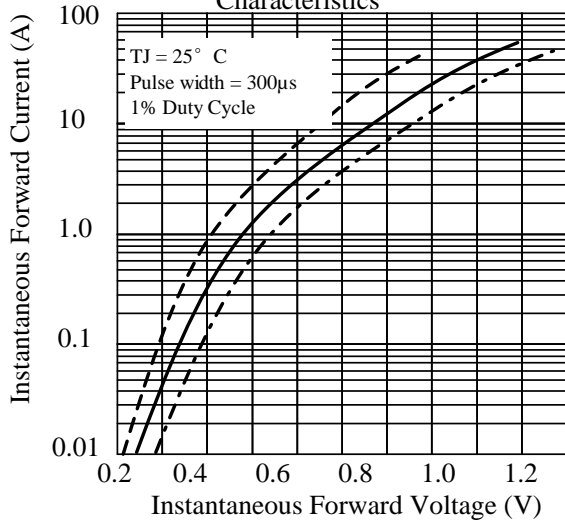


Fig 4. - Typical Reverse Characteristics

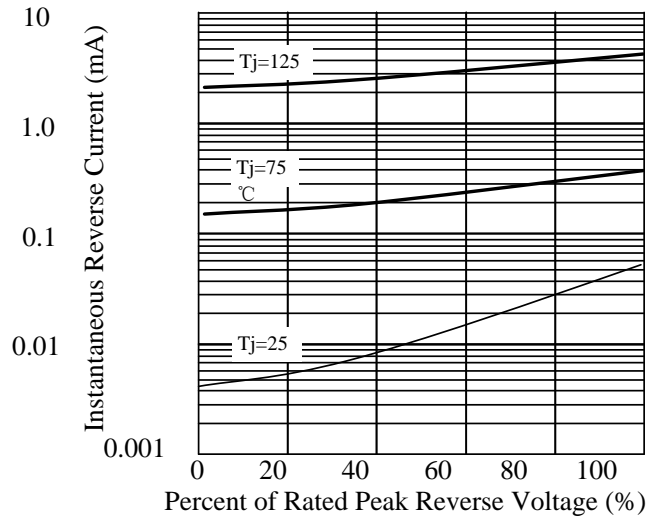


Fig 5. - typical transient thermal impedance

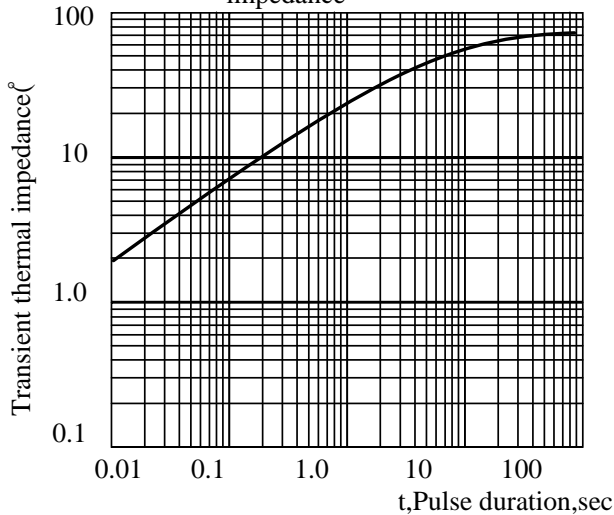
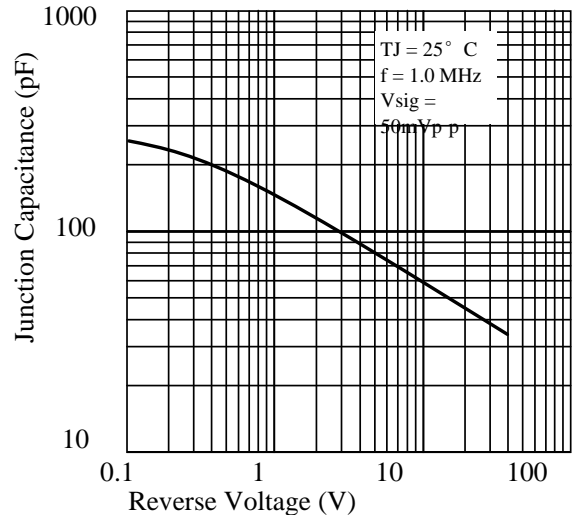
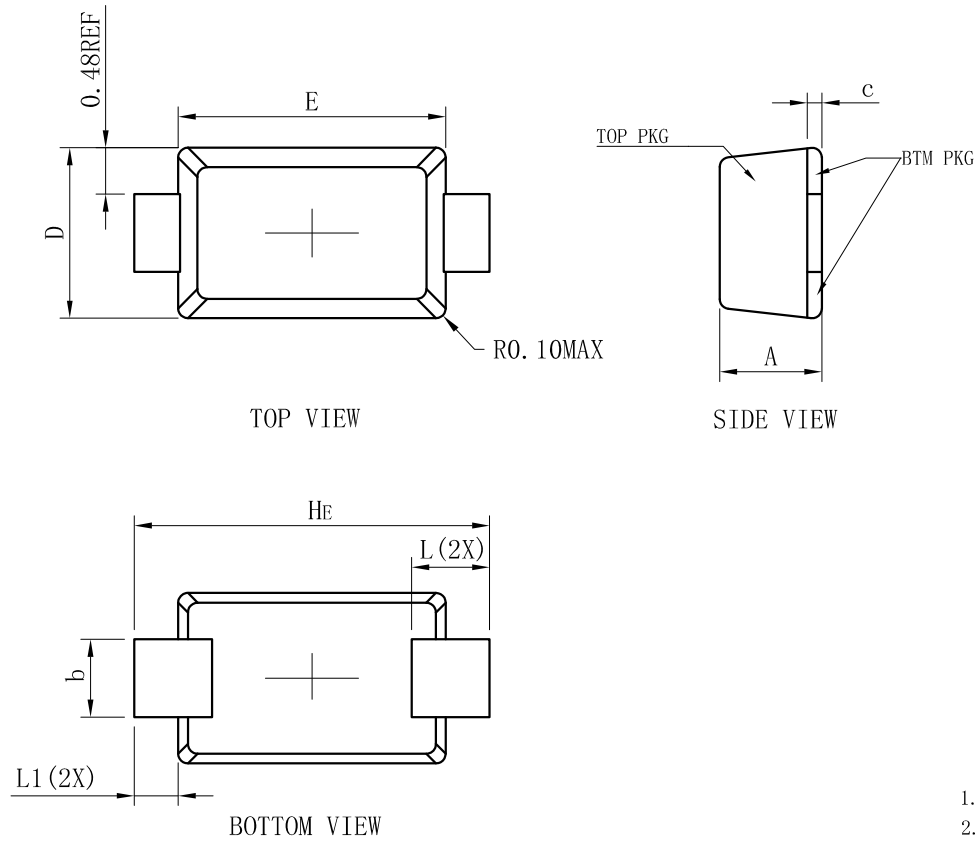


Fig 6. - Typical Junction Capacitance



3.OUTLINE AND DIMENSIONS

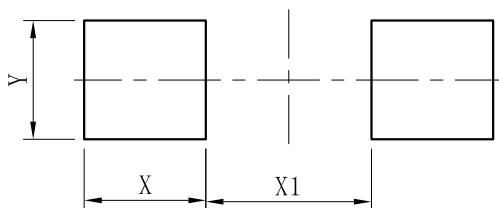


SOD123FL			
DIM	MIN	NOR	MAX
A	0.90	1.05	1.15
b	0.75	0.80	0.95
L	0.80REF.		
E	2.60	2.75	2.90
D	1.60	1.75	1.90
H _E	3.50	3.65	3.80
c	0.12	0.17	0.22
L1	0.45REF.		
All Dimensions in mm			

GENERAL NOTES

1. Top package surface finish $Ra0.4\pm0.2\mu\text{m}$
2. Bottom package surface finish $Ra0.7\pm0.2\mu\text{m}$
3. Side package surface finish $Ra0.4\pm0.2\mu\text{m}$

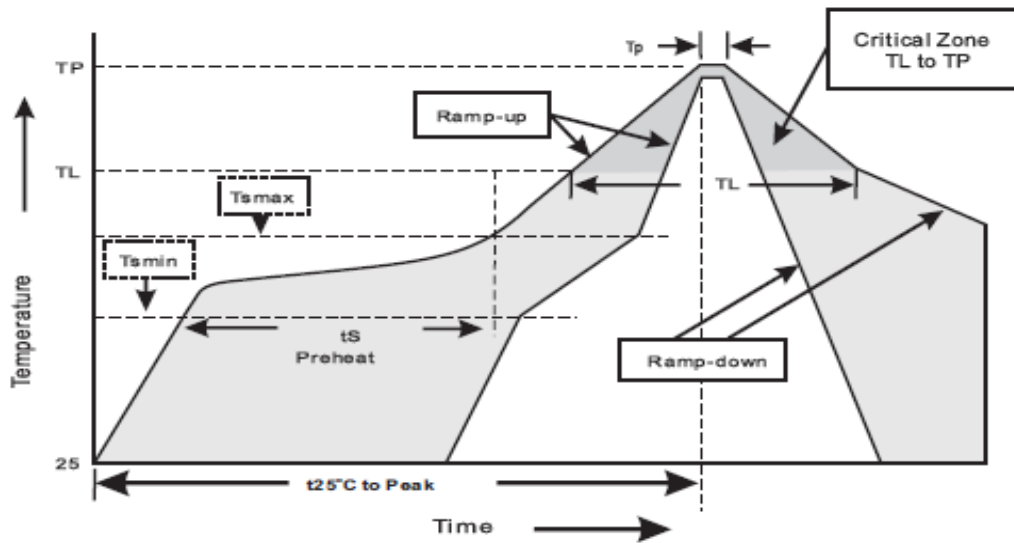
4.SOLDERING FOOTPRINT



DIM	(mm)
X	1.20
Y	1.10
X1	2.00

5.Suggested thermal profile for soldering process

1. Storage environment : Temperature=5~40°C Humidity=55±25%
2. Reflow soldering of surface-mount device



3. Reflow soldering

Profile Feature	Soldering Condition
Average ramp-up rate(T_L to T_P)	<3°C/sec
Preheat	
- Temperature Min(T_{smin})	150°C
- Temperature Max(T_{smax})	200°C
- Time(min to max)(t_s)	60~120sec
T_{smax} to T_L	
- Ramp-up Rate	<3sec
Time maintained above:	
- Temperature (T_L)	217°C
- Time(t_L)	60-260sec
Peak Temperature(T_P)	255 -0/+5°C
Time within 5°C of actual Peak Temperature(T_P)	10~30sec
Ramp-down Rate	<6°C/sec
Time 25°C to Peak Temperature	<6minutes