

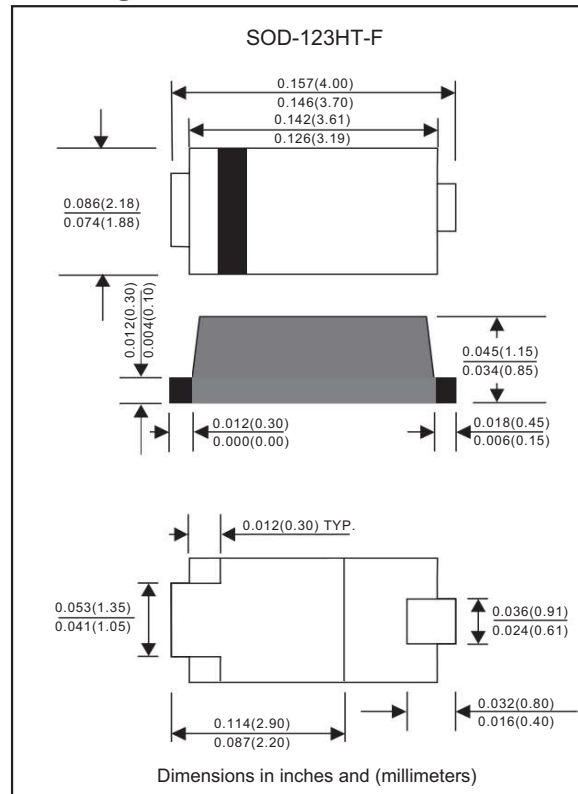
Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Super Fast reverse recovery time
- Compliant to Halogen-free

Mechanical data

- **Package:** SOD-123HT-F
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.1	I_O			2.0	A
Forward surge current	@60Hz Half-sine wave, 1 cycle, $T_J=25$	I_{FSM}			50	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^\circ\text{C}$	I_R			5.0	μA
	$V_R = V_{RRM}$ $T_J = 125^\circ\text{C}$				100	
Thermal resistance	Junction to ambient NOTE 1	$R_{\theta JA}$		68		$^\circ\text{C/W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		12		pF
Storage temperature		T_{STG}	-55		+150	$^\circ\text{C}$

Note:

- (1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J ($^\circ\text{C}$)
DSR2A-MHT-F	50	35	50	1.10	-55 to +150
DSR2B-MHT-F	100	70	100		
DSR2D-MHT-F	200	140	200		
DSR2G-MHT-F	400	280	400		
DSR2J-MHT-F	600	420	600		
DSR2K-MHT-F	800	560	800		
DSR2M-MHT-F	1000	700	1000		

- *1 Repetitive peak reverse voltage
- *2 RMS voltage
- *3 Continuous reverse voltage
- *4 Maximum forward voltage@ $I_F=2.0\text{A}$

Characteristics (Typical)

FIG.1: I_o-T_L Curve

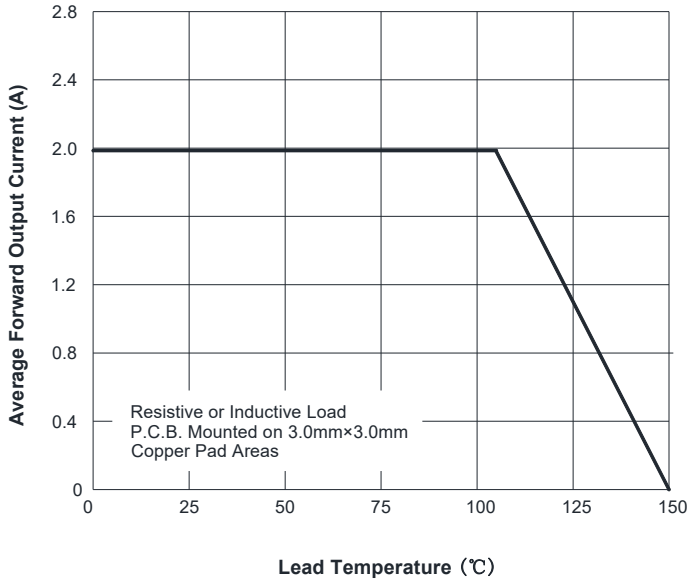


FIG.2: Forward Surge Current Capability

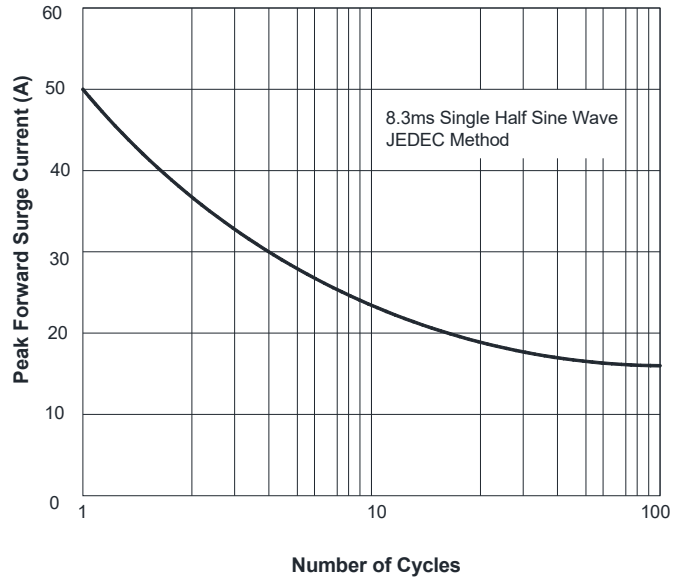


FIG.3: Typical Forward Voltage

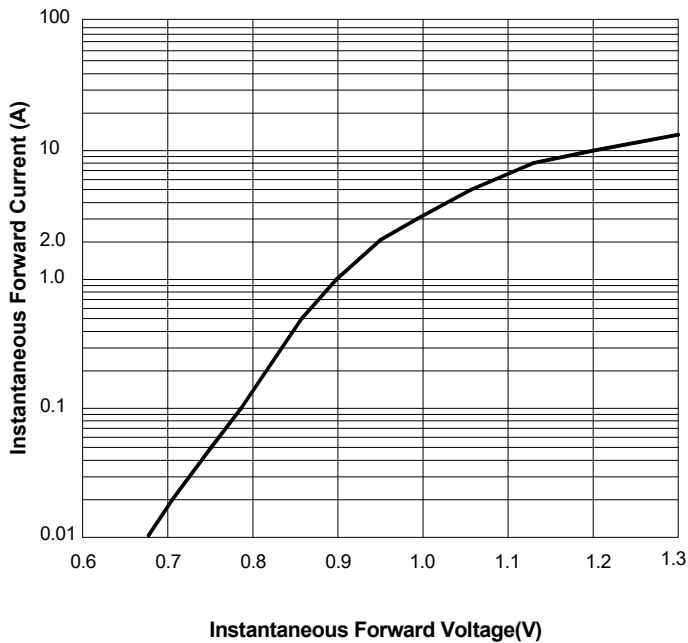
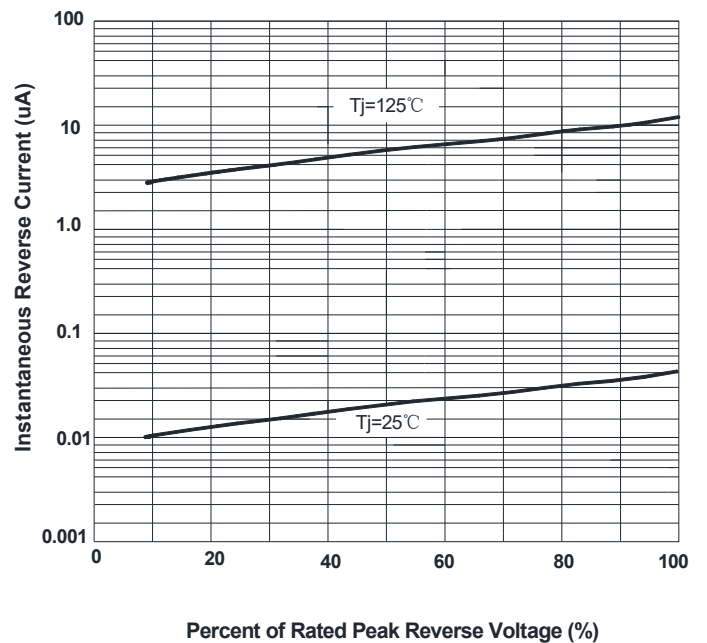
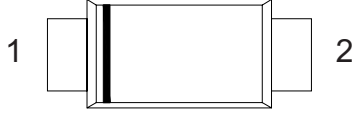



FIG.4: Typical Reverse Characteristics



Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
DSR2A-MHT-F	S2A
DSR2B-MHT-F	S2B
DSR2D-MHT-F	S2D
DSR2G-MHT-F	S2G
DSR2J-MHT-F	S2J
DSR2K-MHT-F	S2K
DSR2M-MHT-F	S2M

Suggested solder pad layout



Dimensions in millimeters

SOD-123HT-F	
Dim	Millimeters
P1	0.64
Q1	2.54
Q2	2.67
Q3	1.27
Q4	0.76