

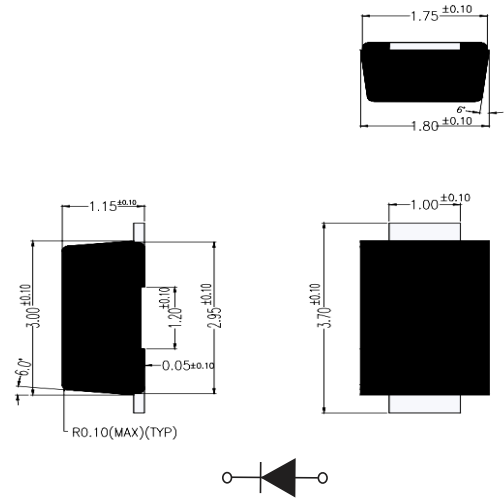
FEATURES

- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case : SOD-123FL, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0003 ounces, 0.0103 grams
- Polarity : Color band cathode

SOD-123FL Unit : inch(mm)



MAXIMUM RATINGS@TA=25°C UNLESS OTHERWISE SPECIFIED

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage Working peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
RMS Reverse Voltage	$V_R(RMS)$	28	V
Average Rectified Output Current	I_O	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30	A
Power Dissipation (Note 1)	P_D	450	mW
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	222	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +125	°C

Notes : 1. FR-4 Board = 70 x 60 x 1mm.

ELECTRICAL CHARACTERISTICS (TA= 25°C unless otherwise noted)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	$I_R=1mA$	40	-	-	V
Forward Voltage	V_F	$I_F=0.1A$ $I_F=1A$ $I_F=3A$	- - -	- - -	0.32 0.45 0.75	V
Reverse Leakage Current (Note 2)	I_R	$V_R=40V, T_A=25°C$ $V_R=40V, T_A=100°C$ $V_R=4V, T_A=25°C$ $V_R=4V, T_A=100°C$ $V_R=6V, T_A=25°C$ $V_R=6V, T_A=100°C$	- - - - - -	- 8.5 10 1 15 1.5	220 - 50 - 75 -	μA mA μA mA μA mA
Total Capacitance	C_T	$V_R=4V, f=1MHz$	-	50	-	pF

Notes : 2. Short duration pulse test used to minimize self-heating effect.

3. Mounted on metal core PCB.

■ Characteristics (Typical)

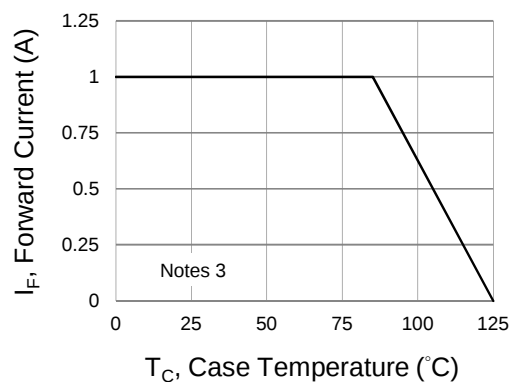


Fig.1 Forward Current Derating Curve

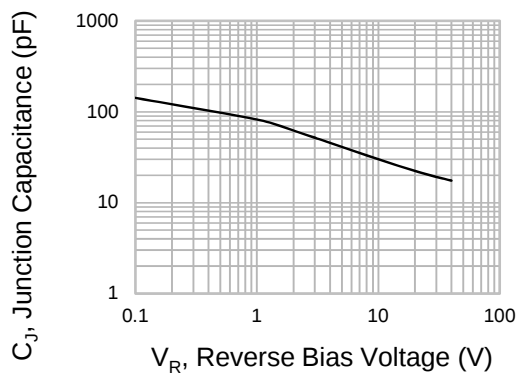


Fig.2 Typical Junction Capacitance

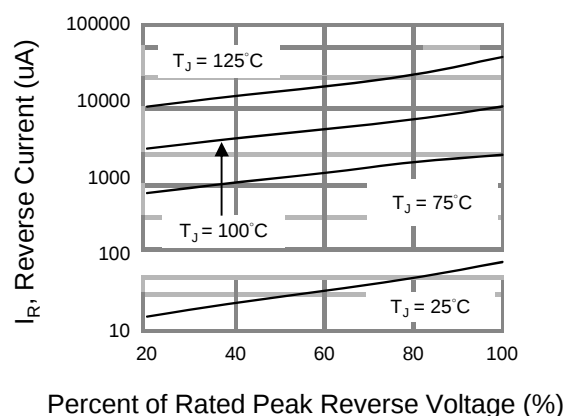


Fig.3 Typical Reverse Characteristics

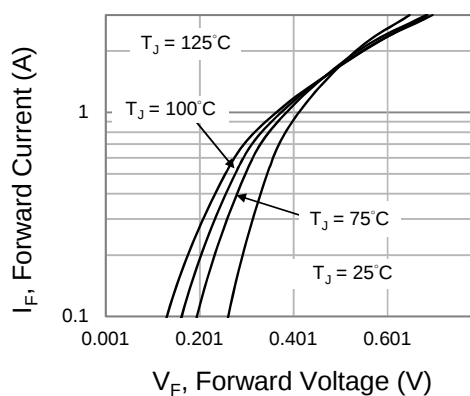


Fig.4 Typical Forward Characteristics

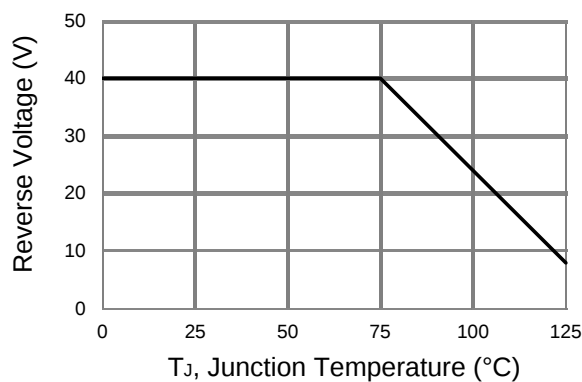


Fig.5 Operating Temperature Derating Curve

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