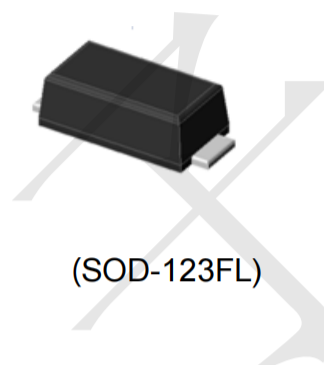


Features

- Low leakage current
- Schottky barrier diode
- Low forward voltage drop
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260°C/10 seconds



(SOD-123FL)

Applications

For use in low voltage, high frequency inverters, free-wheeling and polarity protection application.

Maximum Ratings & Electrical Characteristics (TA=25°C unless otherwise noted)			
Parameter	Symbol		Unit
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum RMS voltage	V_{RMS}	42	V
Maximum DC blocking voltage	V_{DC}	60	V
Maximum average forward rectified current	$I_{F(AV)}$	2	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	50	A
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Thermal-Mechanical Specifications (TA=25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	100	°C /W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	20	°C /W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	20	°C /W

Electrical Specifications ($T_A=25^{\circ}\text{C}$ unless otherwise noted)				
Parameter	Symbol	Test Conditions		Unit
Forward Drop Voltage	V_F	$I_F=2\text{A}$	0.70	V
Reverse leakage current @ V_R	I_R	$T_J=25^{\circ}\text{C}$	0.2	mA
		$T_J=125^{\circ}\text{C}$	30	
Typical junction capacitance	C_J	4.0 V 1 MHz	645	pF

Note:

1. Mounted on copper pad area of 0.2x0.2" (5.0 x 5.0mm) to each terminal.

Ratings and Characteristics Curves (TA = 25°C unless otherwise noted)

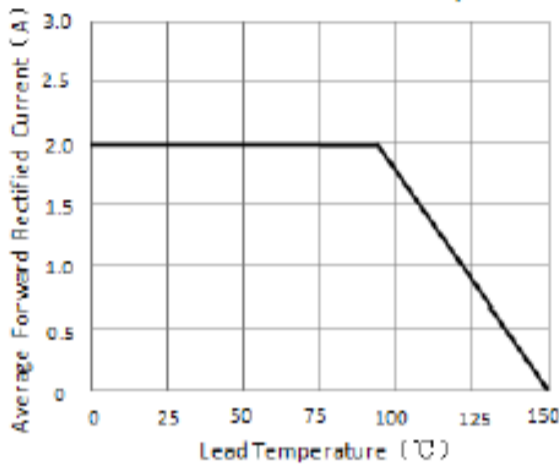


Figure 1. Forward Current Derating Curve

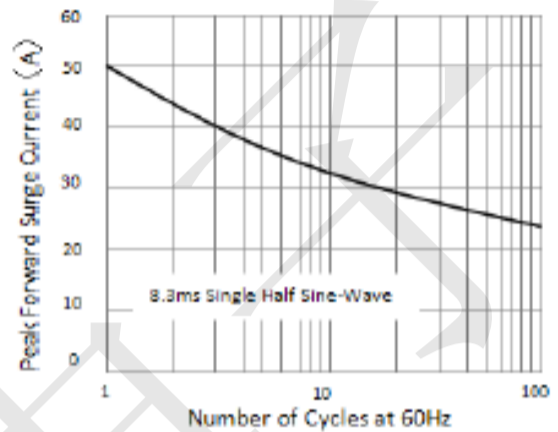


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

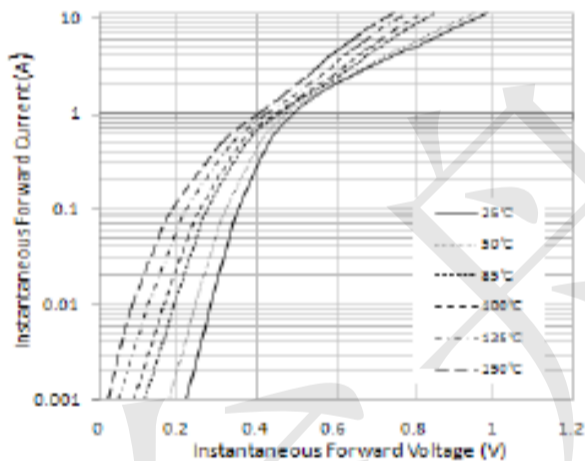


Figure 3. Typical Instantaneous Forward Characteristics

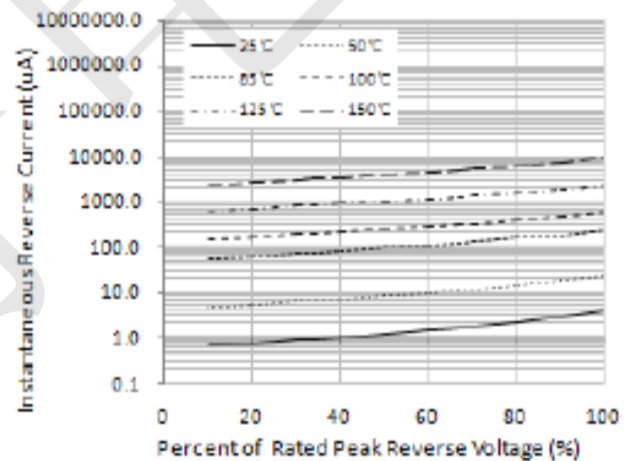


Figure 4. Typical Reverse Characteristics

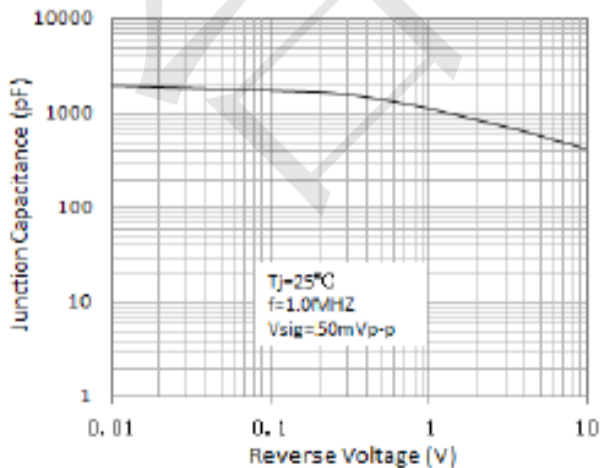
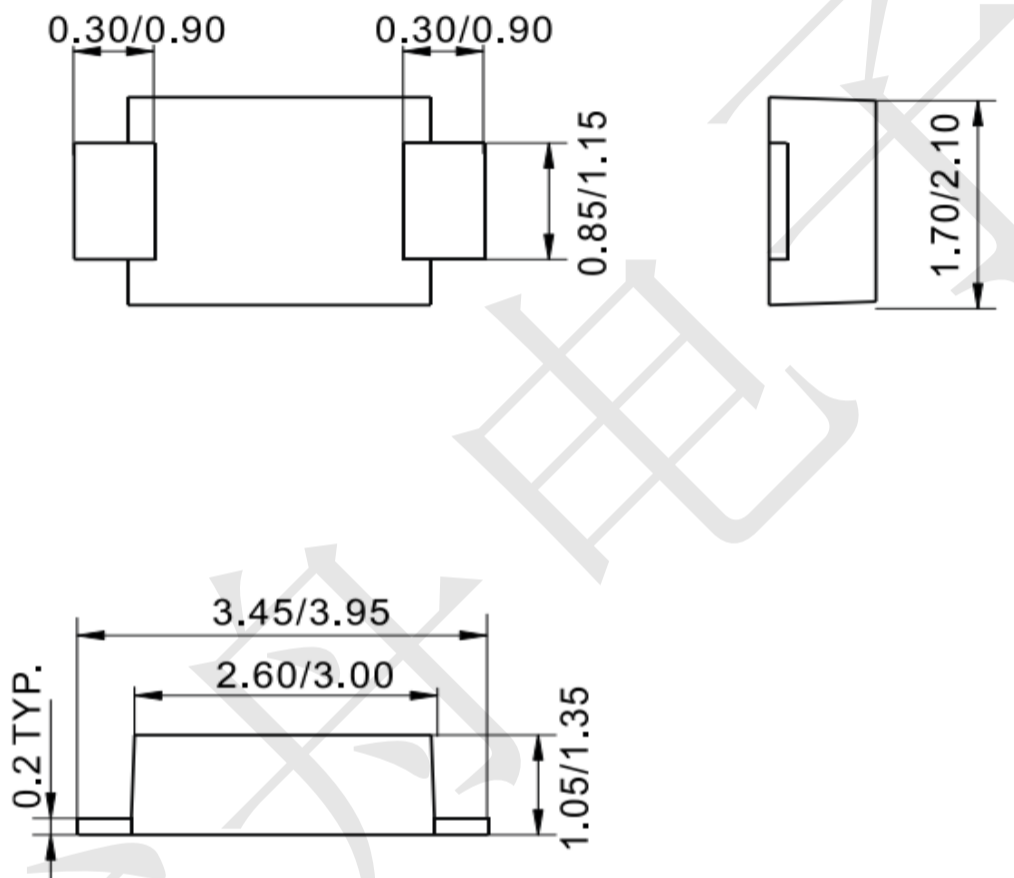


Figure 5. Typical Junction Capacitance

Package Outline Dimensions (unit:mm)

SOD-123FL



Mounting Pad Layout (unit: mm)

