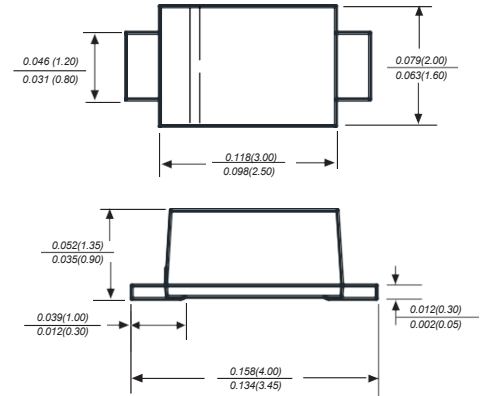


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250 °C/10 seconds at terminals

SOD-123FL



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	SYMBOLS	DSL12	DSL14	DSL16	UNITS
Marking Code		D12	D14	D16	
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	V
Maximum RMS voltage	V_{RMS}	14	28	42	V
Maximum DC blocking voltage	V_{DC}	20	40	60	V
Maximum average forward rectified current at	$I_{(AV)}$	1.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30			A
Maximum instantaneous forward voltage at 1.0A	V_F	0.45		0.50	V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^{\circ}C$ $T_A=100^{\circ}C$	I_R	0.3 10.0	0.2 5.0		mA
Typical junction capacitance (NOTE 1)	C_J	180		80	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	90			$^{\circ}C/W$
Operating junction temperature range	T_J	-55 to +125			$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150			$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. PCB mounted on 2.0*2.0" (5.0*5.0mm) copper pad area.

Typical Characterisitics

Fig.1 Forward Current Derating Curve

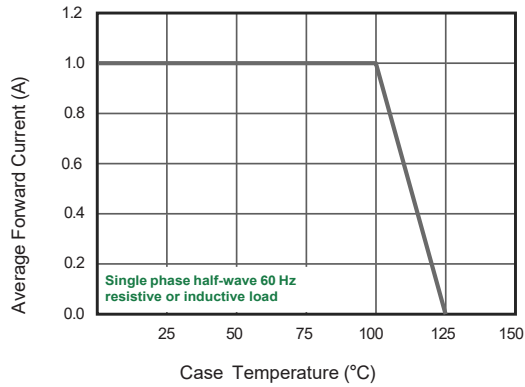


Fig.2 Typical Reverse Characteristics

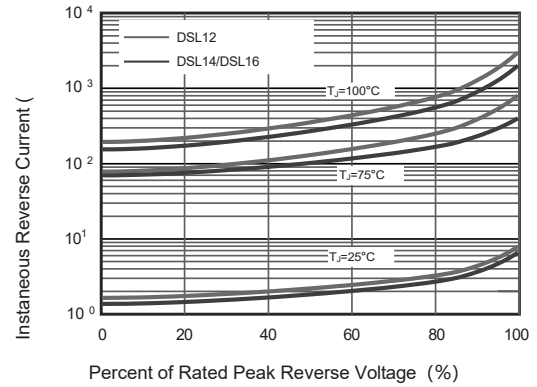


Fig.3 Typical Forward Characteristic

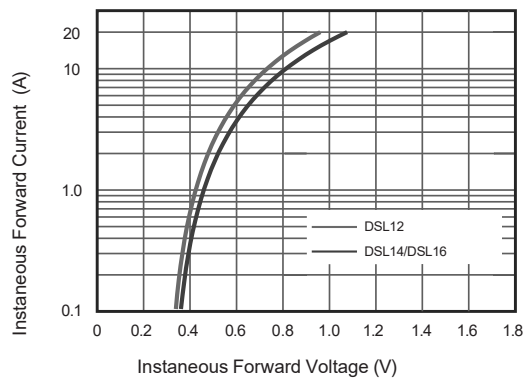


Fig.4 Typical Junction Capacitance

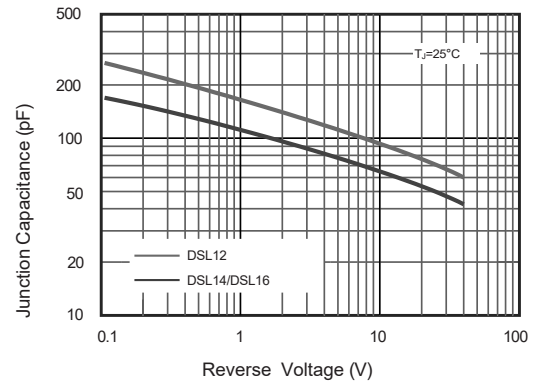


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

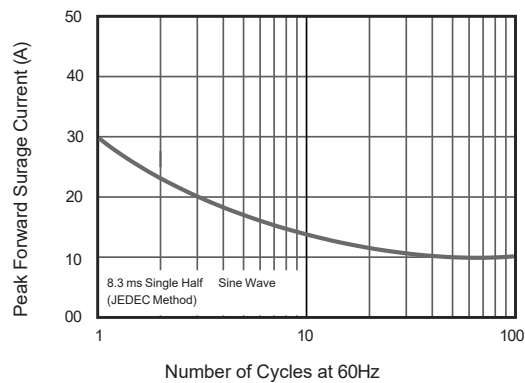
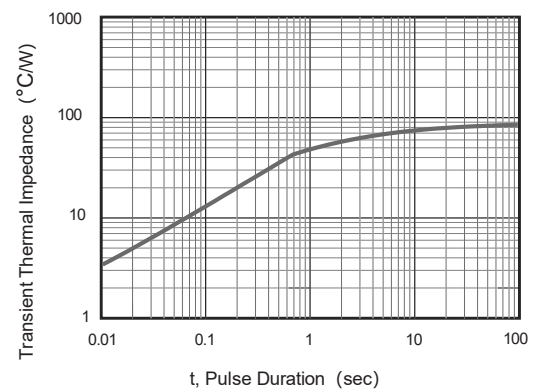


Fig.6 Typical Transient Thermal Impedance



The curve above is for reference only.