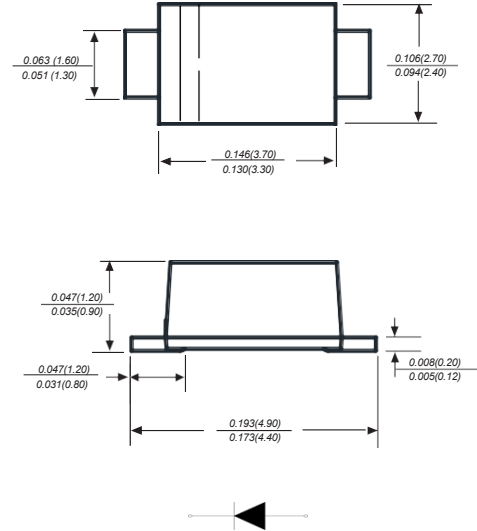


LOW FORWARD VOLTAGE SCHOTTKY BARRIER DIODES

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 RoHS-compliant
- ◆ Ideal for printed circuit board
- ◆ Open Junction chip
- ◆ Low reverse leakage High forward surge current
- ◆ capability High temperature soldering guaranteed
- ◆ 250°C/10 seconds at terminals

SMAF



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	SL54F	UNITS
Marking Code		SL54F	
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current at TL(see fig.1)	$I_{(AV)}$	5.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150	A
Maximum instantaneous forward voltage at 5.0A	V_F	0.45	V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	I_R	1.0 50	mA
Typical junction capacitance (NOTE 1)	C_J	800	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	45.0	$^{\circ}C/W$
Operating junction temperature range	T_J	-55 to +150	$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}C$

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.

2. P.C.B. mounted with 2.0x2.0" (5.0x5.0cm) copper pad areas

3. The typical data above is for reference only.

Typical Characteristics

Fig.1 Forward Current Derating Curve

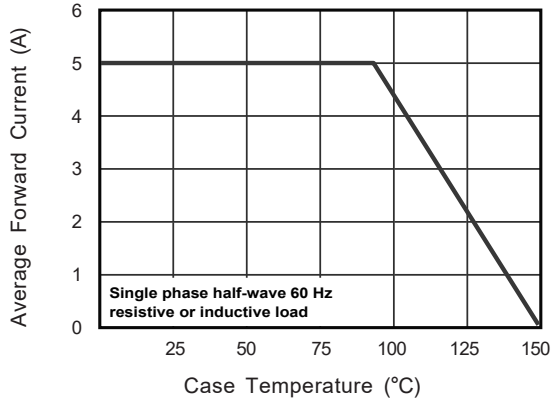


Fig.2 Typical Reverse Characteristics

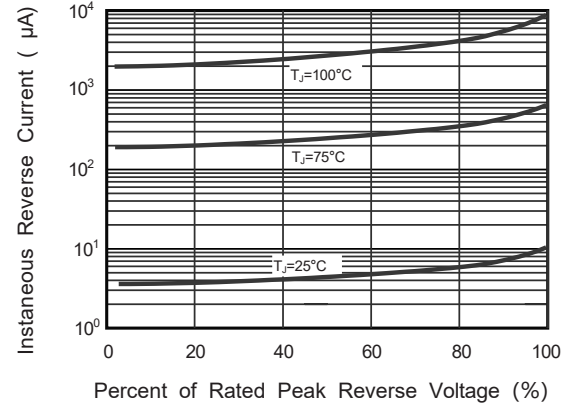


Fig.3 Typical Forward Characteristic

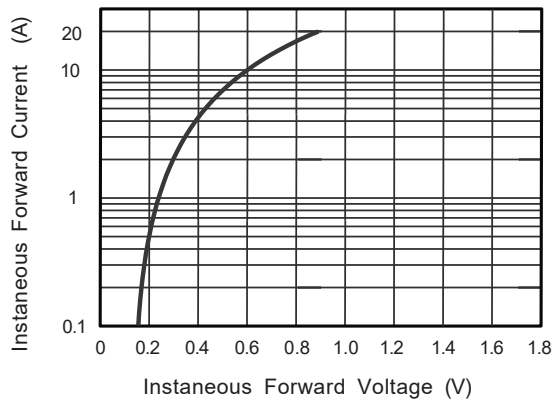


Fig.4 Typical Junction Capacitance

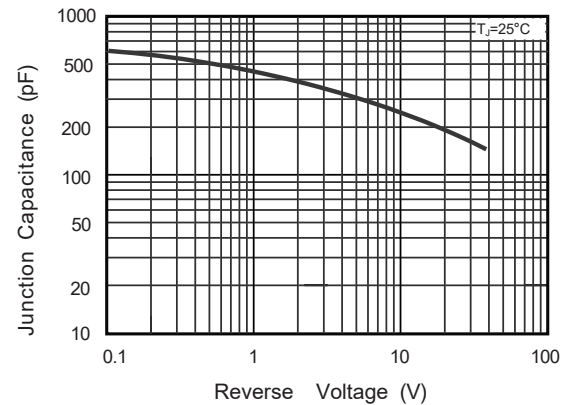


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

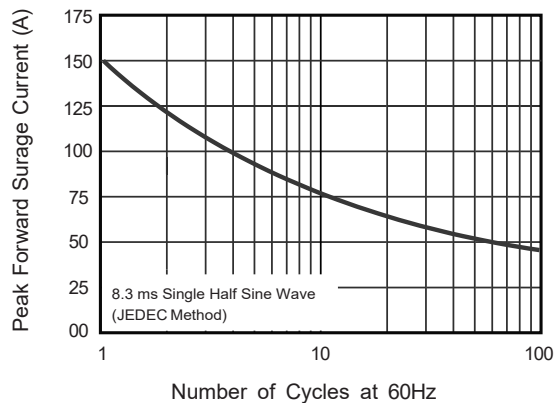
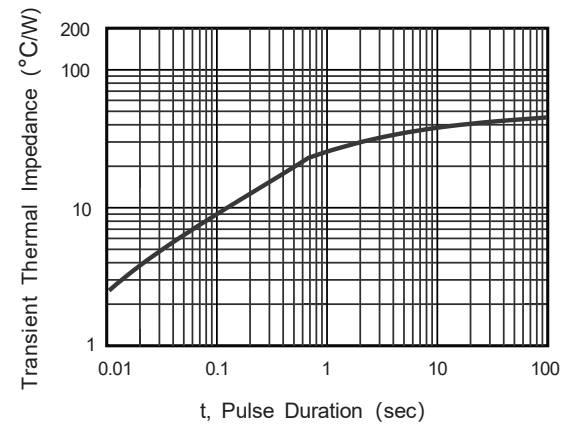


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.