

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Features

TO-277

- ◆ Planar MOS Schottky barrier diodes
- ◆ Low forward voltage drop
- ◆ low profile - typical body height 1.1 mm Moisture
- ◆ sensitivity: level 1, per J-STD-020
- ◆ High temperature soldering guaranteed: 260°C/ 10 seconds

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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	SYMBOL	SL1545	UNIT
Marking Code		SL1545	
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum DC blocking voltage	V_{DC}		
RMS Reverse voltage	V_{RMS}	31.5	V
Average Rectified Output Current	$I_{(O)}$	15	A
Non-Repetitive Peak Forward Surge 8.3ms Single Half Sine-Wave Superimposed on rated load (JEDEC Method)	I_{FSM}	250	A
Typical Junction Capacitance (note1)	C_J	1000	pF

Electrical Characteristics Ta=25°C unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ	Max	
Forward Voltage Drop at 15A	TA=25°C TA=100°C	V_F	--	0.48	V
			--	0.43	
Peak reverse current at rated DC blocking voltage	TA=25°C TA=100°C	I_R	100	200	uA
			10	20	mA
Typical thermal resistance(note2)		$R_{\theta JA}$	22		°C/W
Operating junction storage temperature range		T_J	-55 to +150		°C
Storage temperature range		T_{STG}	-55 to +150		°C

note:1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc

2. Polyimide PCB, 2oz. Copper. Cathode pad dimensions 18.8* 14.4*1.6mm. Anode pad dimensions 5.6 x 14.4*1.6mm.

Ratings And Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

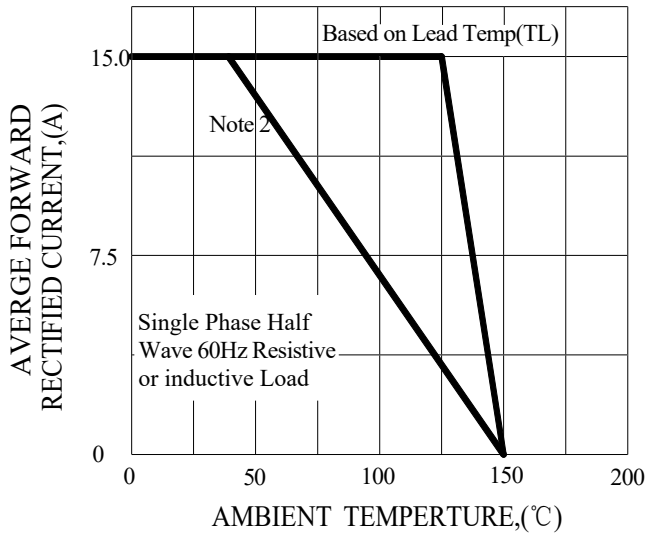


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

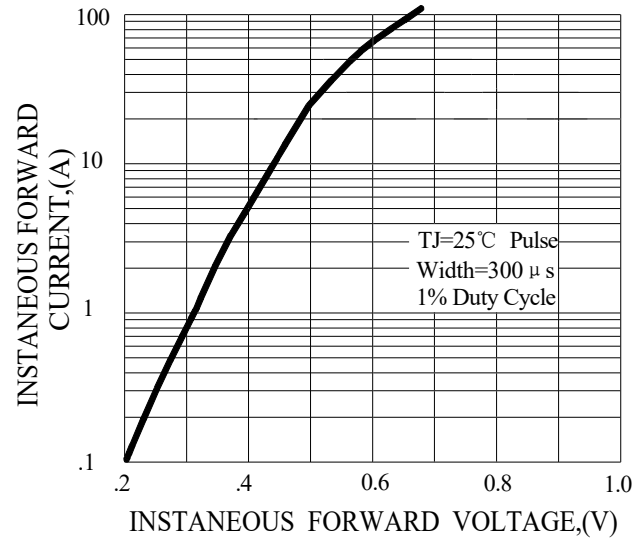


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

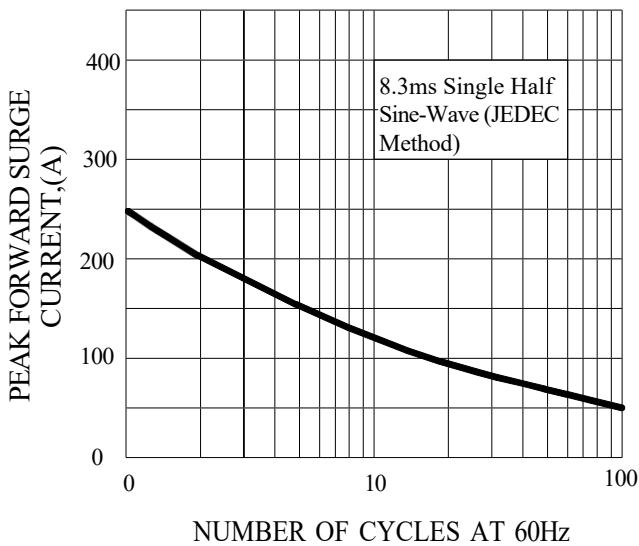
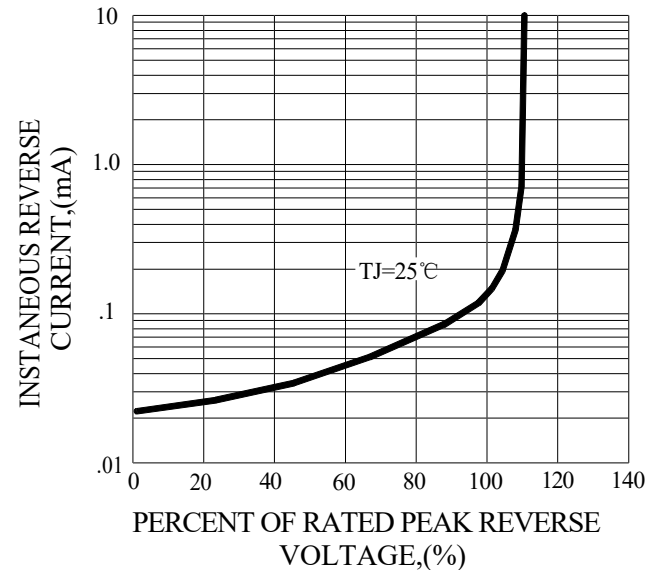


FIG.4-TYPICAL REVERSE CHARACTERISTICS



The curve above is for reference only.