

SL12 THRU SL14

SURFACE MOUNT LOW VF SCHOTTKY BARRIER RECTIFIER



康 比 電 子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 20 to 40 VOLTS
FORWARD CURRENT: 1.0 AMPERE

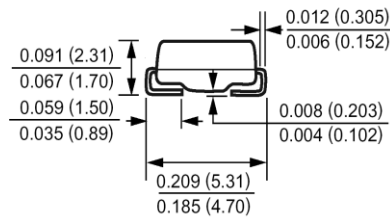
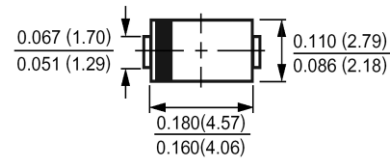
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- High current capability, low V_F
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier. majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering : 260°C /10 seconds at terminals

MECHANICAL DATA

Case: Molded plastic, DO-214AC(SMA)
Terminals: Axial leads, solderable per MIL-STD-750, method 2026 guaranteed
Polarity: Color band denotes cathode end
Packaging: 12mm tape per EIA STD RS-481
Weight: 0.002 ounce, 0.064 gram

DO-214AC(SMA)



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, derate current by 20%.

	Symbols	SL12	SL13	SL14	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current at T _L (See Fig. 1)	I _(AV)	1.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30			Amp
Maximum Forward Voltage at 1.0A (Note 1)	V _F	0.38	0.38	0.40	Volts
Maximum Reverse Current at T _A =25°C at Rated DC Blocking Voltage T _A =100°C	I _R	0.5 20			mAmp
Typical Thermal Resistance (Note 2)	R _{θJA}	88			°C/W
	R _{θJL}	28			
Operating Junction Temperature Range	T _J	-50 to +125			
Storage Temperature Range	T _{stg}	-50 to +150			°C

NOTES:

1- Pulse test: 300μs pulse width, 1% duty cycle

2- P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas

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RATINGS AND CHARACTERISTIC CURVES

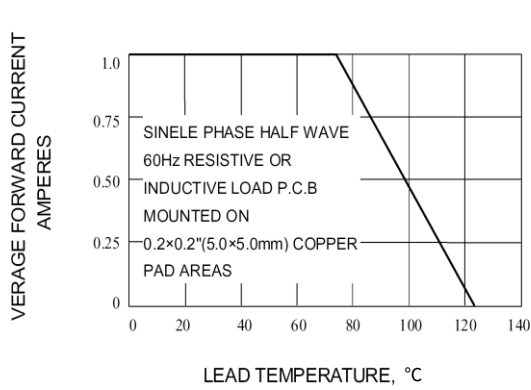


Fig. 1-FORWARD CURRENT DERATING CURVEE

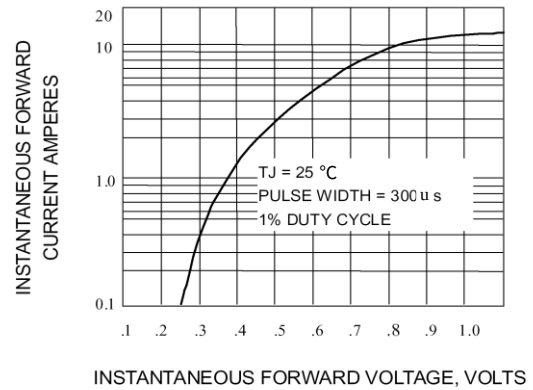


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

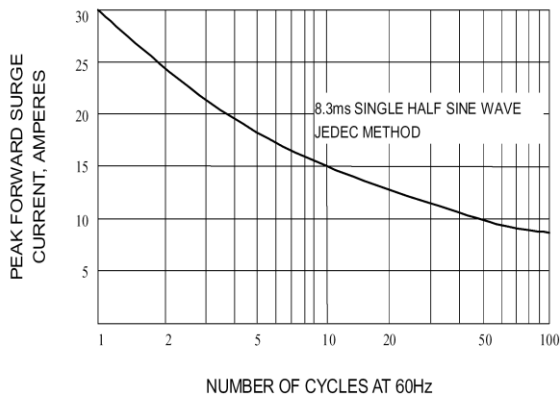


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

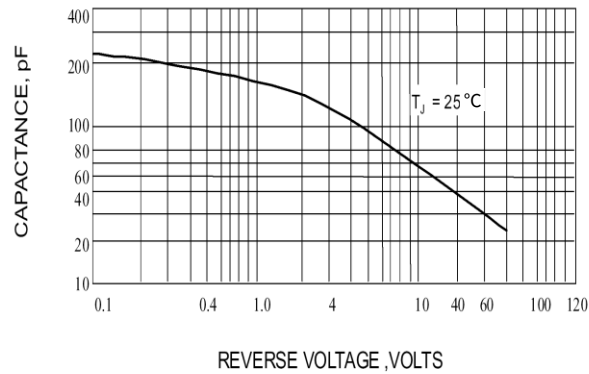


Fig. 4-TYPICAL JUNCTION CAPACITANCE