



DATA SHEET

SL12~SL14

LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20~40 Volts **CURRENT** 1.0 Amperes

SMA/DO-214AC

Unit: inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- High current capacity, low V_F
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.
- High temperature soldering guaranteed : 260 °C / 10 seconds at terminals
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic

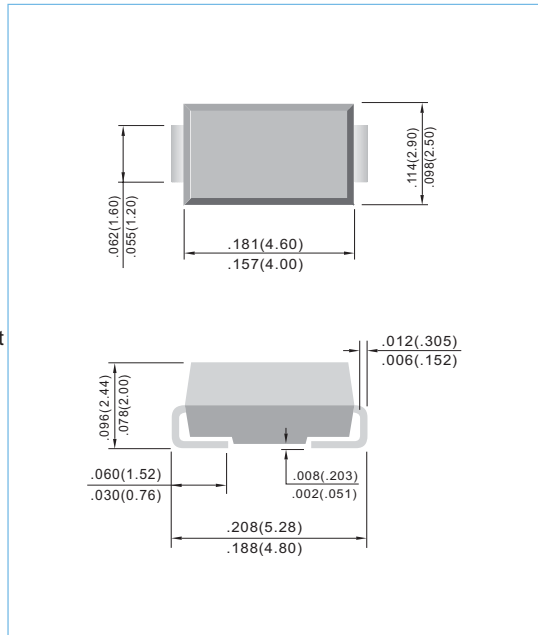
Terminals: Solder plated, solderable per MIL-STD-202G,

Method 208

Polarity: Color band denotes positive end (cathode)

Standard packaging: 12mm tape (EIA-481)

Weight: 64mg



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

PARAMETER	SYMBOL	SL12	SL13	SL14	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Current at TL (See Figure 1)	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 (Note 1)	V_F	0.38	0.38	0.40	V
Maximum DC Reverse Current $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R	0.5 50			mA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	28 88			/ W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 50 to + 125			

NOTES:

A. Pulse Test with $PW = 300\mu\text{sec}$, 1% Duty Cycle.

B. Mounted on P.C. Board with 5.0mm^2 (.013mm thick) copper pad areas.



RATING AND CHARACTERISTIC CURVES

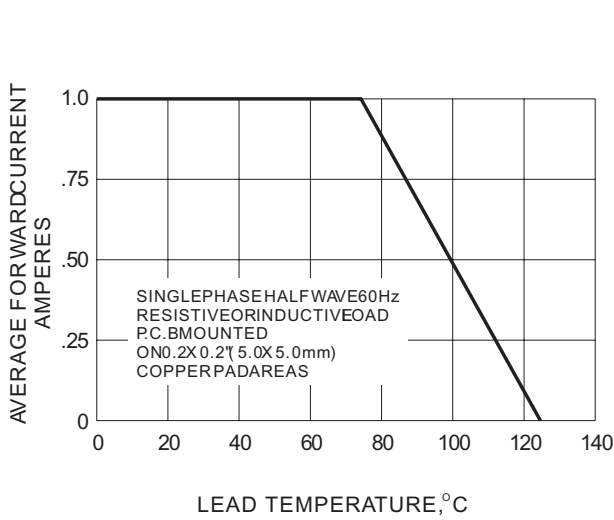


Fig.1-FORWARD CURRENT DERATING CURVE

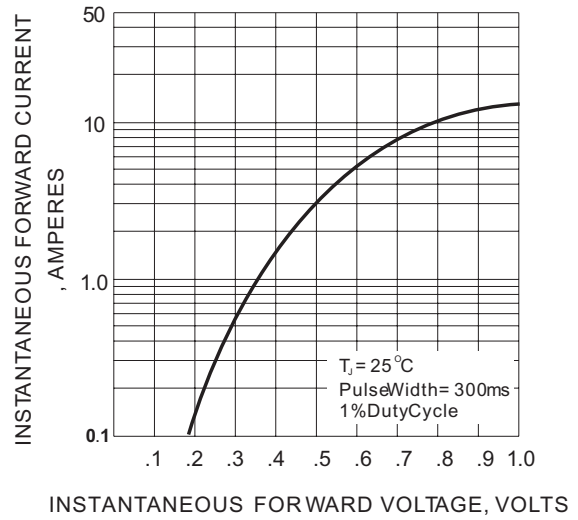


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

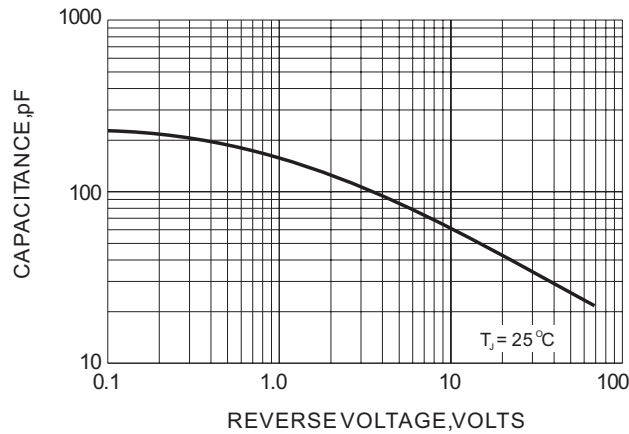


Fig.3-TYPICAL JUNCTION CAPACITANCE

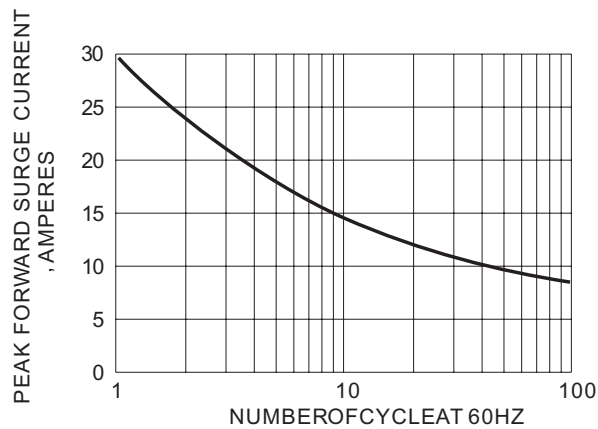


Fig.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT