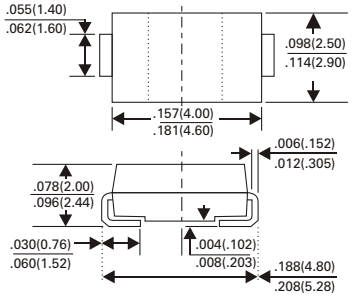
B120SL thru B140SL

LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 40 VOLTS CURRENT - 1.0 AMPERES

SMA/DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mount applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- Easy pick and place
- High curren capability, low VF
- High surge capacity
- For use in low voltage gigh frequency inverters, Free wheeling, and protection applications
- High temperature soldering guaranteed：
- High temperature soldering： 260°C/10 seconds at terminsls
- Pb free product at available：99% Sn above meet RoHs Environment substance directive request

MECHANICAL DATA

Case：JEDEC DO-214AC molded plastic
Terminals：Solder plated, solderable per MIL-STD-750, Method 2026
Polarity：Color band denotes cathode
Standard Package：12mm tape (EIA STD EIA-481)
Weight：0.002 ounce, 0.064gram

MAXIMUM RATIXGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified
Resistive or inductive load

	SYMBOL	B120SL	B130SL	B140SL	UNITS
Maximum Repetitive 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 Figure 1)	$I_{(AV)}$	1.0			Amps
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30			Amps
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	V_F	0.32		0.35	Volts
Maximum DC Reverse Current (NOTE 1) T_A=25°C (Note 1) at Rated DC Blocking Voltage T_A=100°C	I_R	0.5 20			mA
Maximum Thermal Resistance (NOTE 2)	$R_{\theta JL}$ $R_{\theta JA}$	28 88			°C / W
Operating Junction Capacitance Range	T_J	-50 to +150			°C
Storage and Operating Temperature Range	T_{STG}	-50 to +150			°C

NOTES：
1. Pulse test with pw=300 sec, 1% duty cycle
2. Measured on P.C.B WITH 5.0mm² (0.13mm thick) copper pad areas

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RATING AND CHARACTERISTICS CURVES B120SL THRU B140SL

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

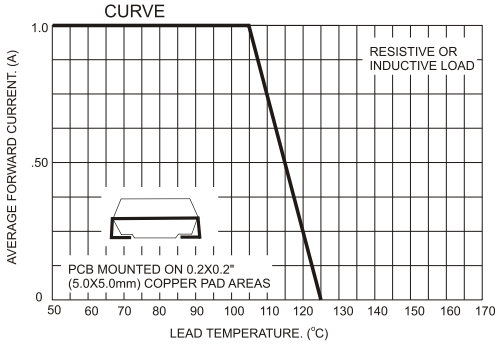

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

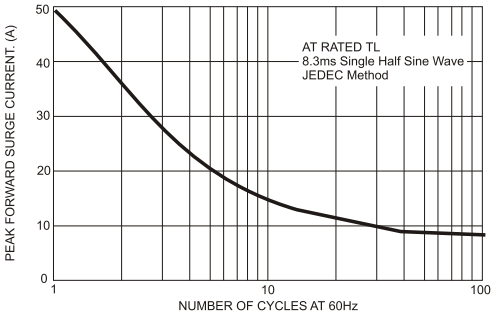

FIG.3- TYPICAL FORWARD CHARACTERISTICS

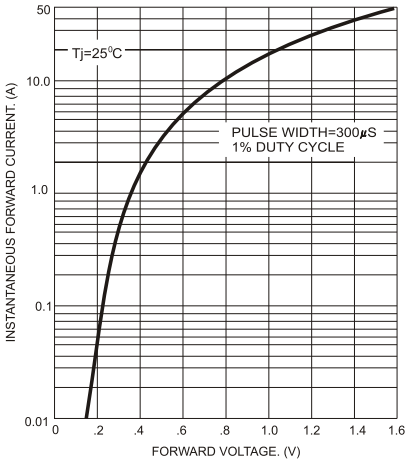

FIG.4- TYPICAL REVERSE CHARACTERISTICS

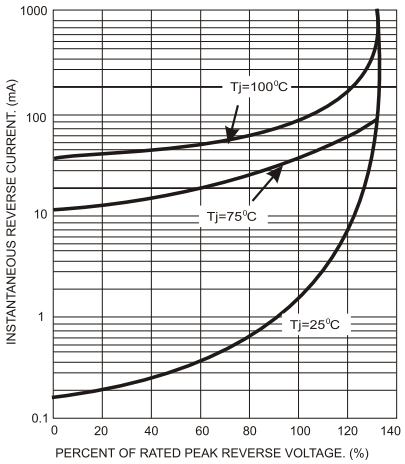

FIG.5- TYPICAL JUNCTION CAPACITANCE