



YEA SHIN TECHNOLOGY CO., LTD MBRX140SL THRU MBRX160SL

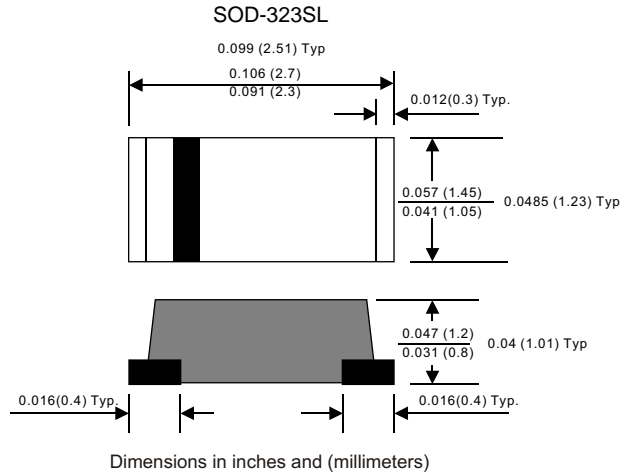
SMD Schottky Barrier Rectifier

Voltage - 40 to 60 Volts Current - 1 Amp



Features

- Batch process design, excellent power dissipation offers better reverse leakage current.
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- High surge capability.
- Guard ring for overvoltage protection.
- Very tiny plastic SMD package.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228



Mechanical data

- Case: JEDEC SOD-323SL, Molded plastic
- Terminals: Solde plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight:0.008 grams (Approximate).

Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	MBRX140SL	MBRX160SL	Unit
Repetitive peak reverse voltage	V_{RRM}	40	60	V
Maximum RMS voltage	V_{RMS}	28	42	V
Continuous reverse voltage	V_R	40	60	V
Maximum forward voltage @ $I_F=1.0A$	V_F	0.55	0.70	V
Forward rectified current	I_o	1.0		A
Forward surge current, 8.3ms half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	30		A
Maximum Reverse current	$V_R=V_{RRM}$ @ $T_J=25^\circ C$	0.5		mA
	$V_R=V_{RRM}$ @ $T_J=100^\circ C$	10		
Typ. Thermal resistance, junction to ambient air	$R_{\theta JA}$	90		°C/W
Typ. Diode junction capacitance (Note 1)	C_J	120		pF
Operating junction temperature	T_J	-55 to +125	-55 to +150	°C
Storage temperature	T_{STG}	-65 to +175		°C

Note 1: f=1MHz and applied 4V DC reverse voltage.

DEVICE CHARACTERISTICS

MBRX140SL THRU MBRX160SL

Fig.1- Typical Forward Current Derating Curve

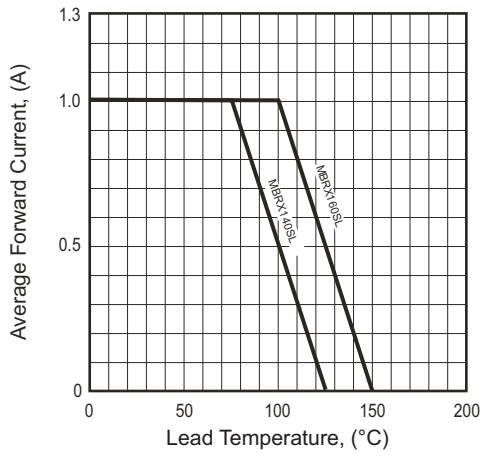


Fig.2- Typical Forward Characteristics

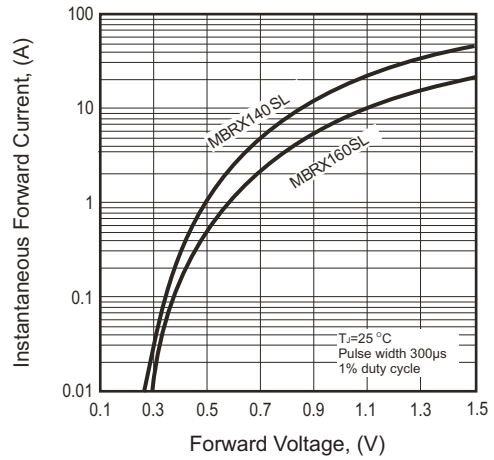


Fig.3 - Maximum Non-repetitive Forward Surge Current

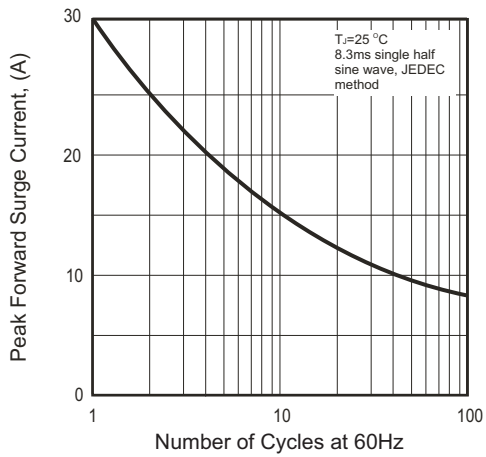


Fig.4 - Typical Junction Capacitance

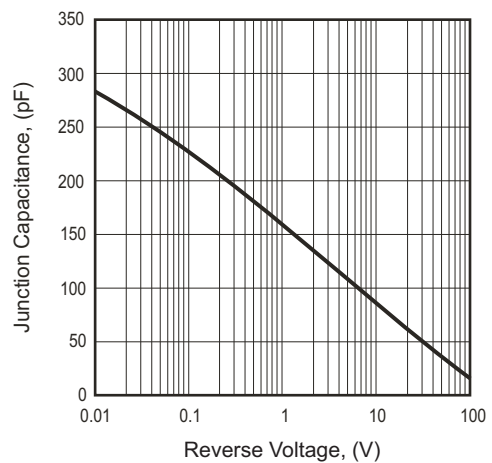
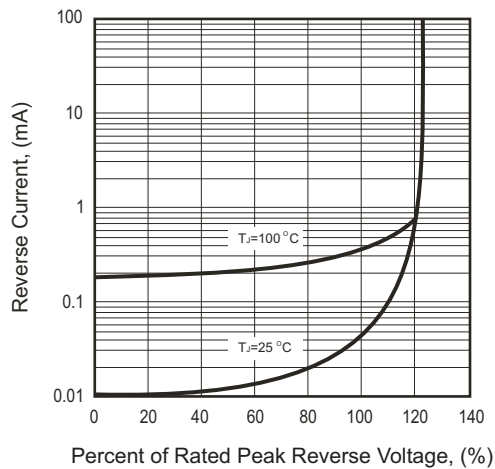


Fig.5- Typical Reverse Characteristics



PACKAGE OUTLINE & DIMENSIONS

MBRX140SL THRU MBRX160SL

Marking Code

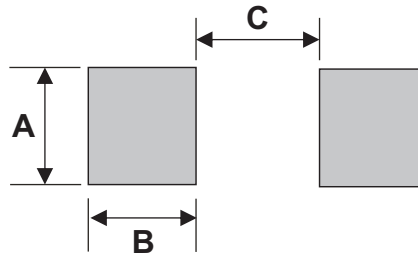
Part Number	Marking Code
MBRX140SL	14
MBRX160SL	16



XX=Product type marking code

Suggested PAD Layout

SIZE	SOD-323SL	
	(mm)	(inch)
A	1.50	0.059
B	1.00	0.039
C	1.30	0.051



Standard Packaging

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOD-323SL	3,000	7