

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**MBRX0520--MBRX0540**

### FEATURES

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current
- For surface mouted applications
- High temperature soldering: 250°C/10 seconds at terminals



### MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

### Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	MBRX0520	MBRX0530	MBRX0540	UNITS
Device marking code		<b>B2</b>	<b>B3</b>	<b>B4</b>	
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 rectified current $T_J=90^\circ\text{C}$	$I_{(AV)}$	0.5			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	5.5			A

### Thermal Characteristics

Characteristic	Symbol	MBRX0520	MBRX0530	MBRX0540	UNITS
Typical junction capacitance	$C_J$	110			p F
Operating temperature range	$T_J$	- 55 --- + 125			°C
Storage temperature range	$T_{STG}$	- 55 --- + 150			°C

### Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	MBRX0520	MBRX0530	MBRX0540	UNITS
Maximum instantaneous @ $I_{FM}=0.5\text{A}$ forward voltage	$V_F$	0.50	0.55		V
Repetitive peak reverse current at rated DC blocking voltage	$I_R$	0.3			m A

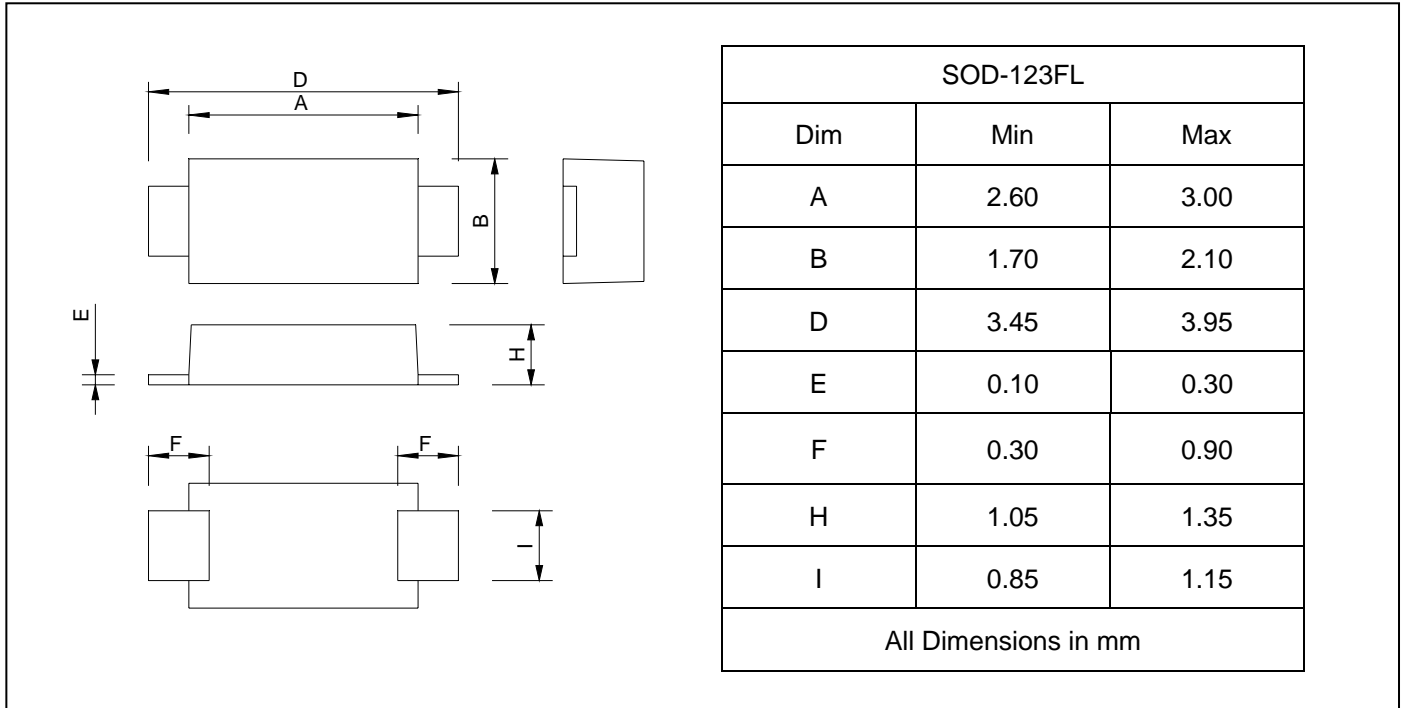
NOTE 1. Measured at  $f=1.0\text{MHz}$ ,  $V_R=4.0\text{V}$



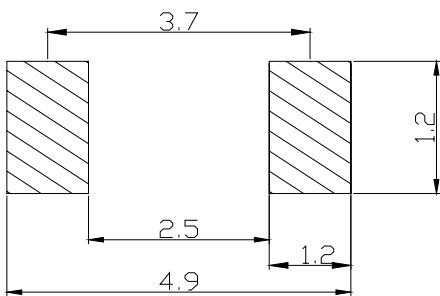
**SURFACE MOUNT SCHOTTKY  
BARRIER RECTIFIERS**

**MBRX0520--MBRX0540**

**PACKAGE OUTLINE DIMENSIONS**



**SOLDERING FOOTPRINT**



Unit : mm

**PACKAGE INFORMATION**

Device	Package	Shipping
MBRX0520--MBRX0540	SOD-123FL	10000/Tape&Reel



# SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

## MBRX0520--MBRX0540

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

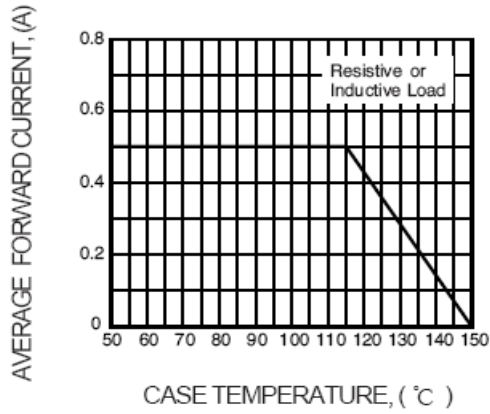


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

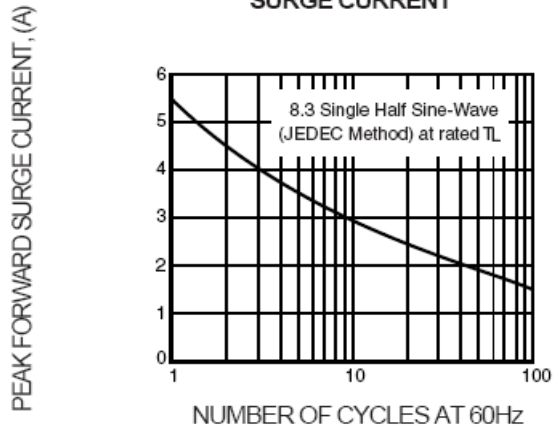


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

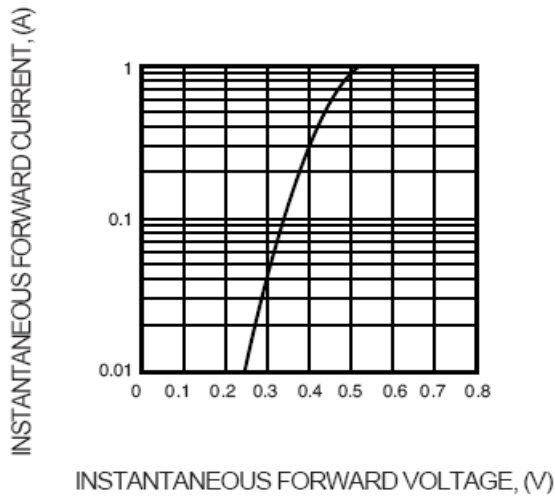


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

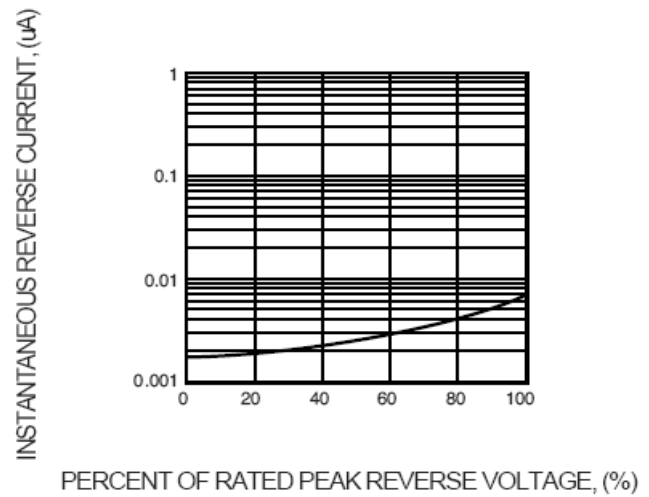


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

