

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

MBRX220--MBRX2A0

FEATURES

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current



Lead-free



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	MBRX220	MBRX230	MBRX240	MBRX260	MBRX280	MBRX2A0	UNITS
Device marking code		2S	3S	4S	6S	8S	AS	
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	60	80	100	V
Maximum average forward rectified current $T_J=90^\circ\text{C}$	$I_{(AV)}$	2.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	40						A

Thermal Characteristics

Characteristic	Symbol	MBRX220	MBRX230	MBRX240	MBRX260	MBRX280	MBRX2A0	UNITS
Typical junction capacitance	C_J	30						pF
Maximum thermal resistance	$R_{\theta JA}$	60						°C/W
Operating temperature range	T_J	- 55 --- + 125				- 55 --- + 150		°C
Storage temperature range	T_{STG}	- 55 --- + 150						°C

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

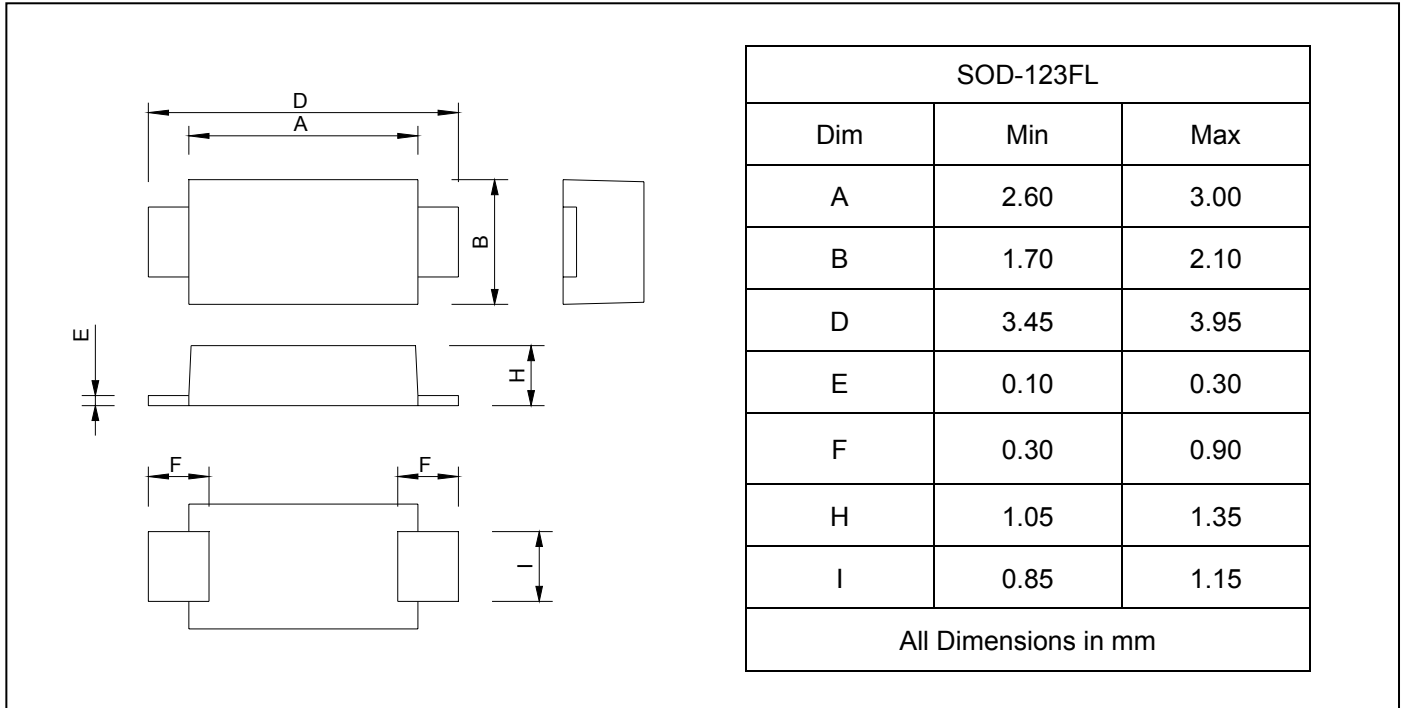
Characteristic	Symbol	MBRX220	MBRX230	MBRX240	MBRX260	MBRX280	MBRX2A0	UNITS
Maximum instantaneous @ $I_{FM}=2.0\text{A}$ forward voltage	V_F	0.55			0.75	0.85		V
Maximum DC reverse current $T_J=25^\circ\text{C}$ at rated DC blocking voltage $T_J=125^\circ\text{C}$	I_R	0.3			5.0			mA



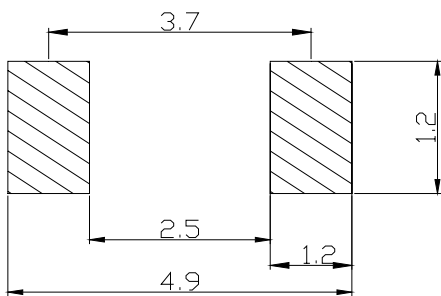
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BARRIER RECTIFIERS**

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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MBRX220--MBRX2A0	SOD-123FL	10000/Tape&Reel



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BARRIER RECTIFIERS**

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FIG.1 – FORWARD DERATING CURVE

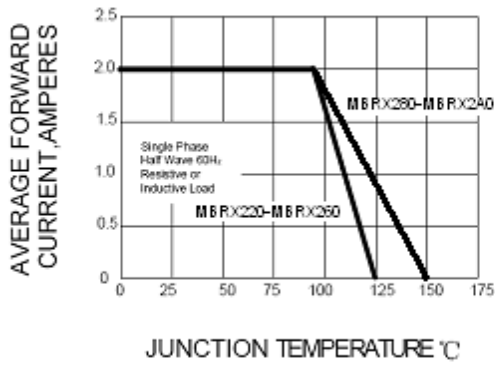


FIG.2- PEAK FORWARD SURGE CURRENT

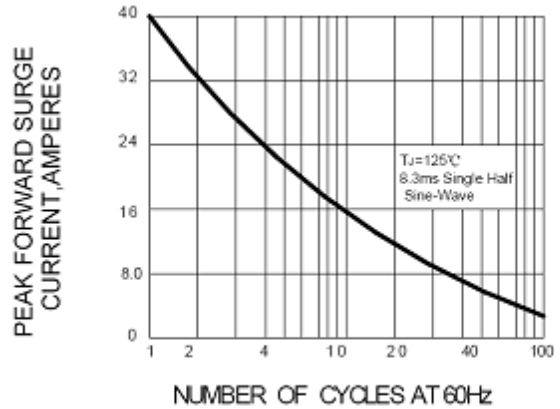


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

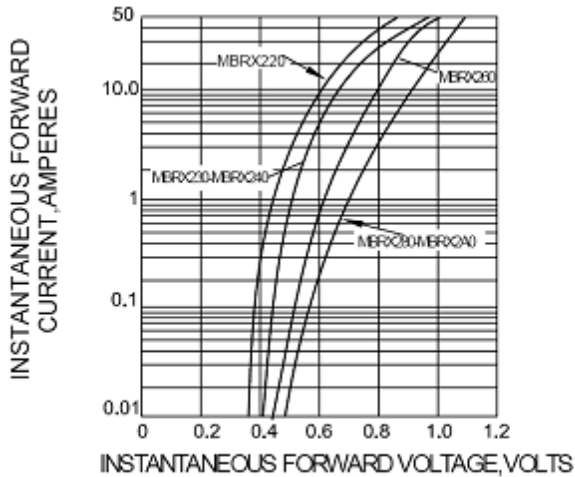


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

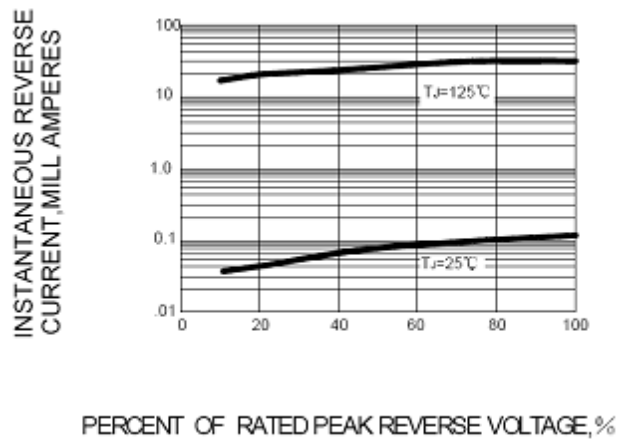


FIG.5-TYPICAL JUNCTION CAPACITANCE

