

**SURFACE MOUNT SCHOTTKY  
BARRIER RECTIFIERS**

**REVERSE VOLTAGE: 20 - 100 V  
CURRENT: 1.0 A**

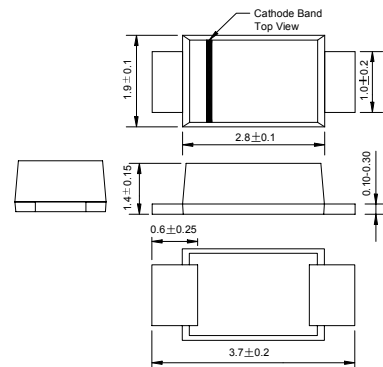
**FEATURES**

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

**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
- ◇ Weight: 0.0008 ounces, 0.022 gram
- ◇ Mounting position: Any

**SOD - 123FL**



Dimensions in millimeters

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

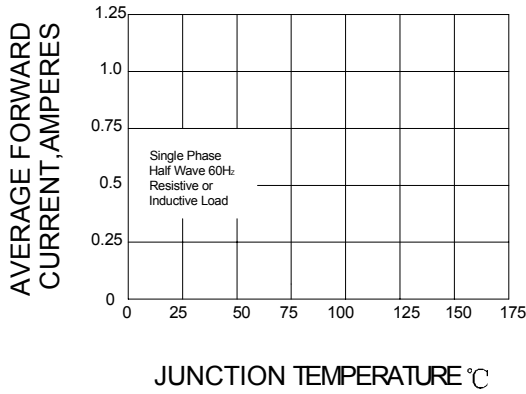
Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

**ELECTRICAL CHARACTERISTICS**

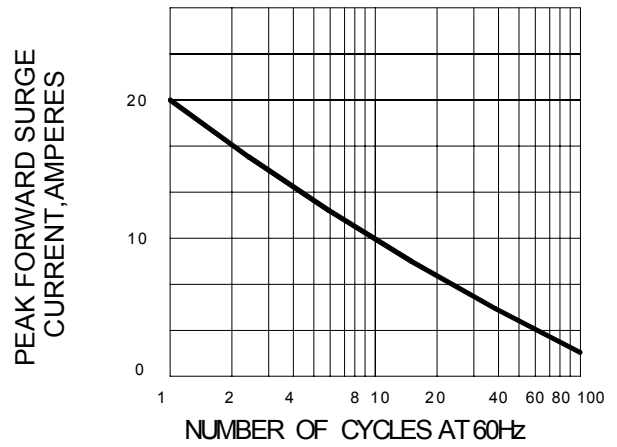
		MBRX 120	MBRX 130	MBRX 140	MBRX 160	MBRX 180	MBRX 1A0	UNITS
Device marking code		S2	S3	S4	S6	S8	SA	
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	60	80	100	V
Maximum average forward rectified current $T_j=90^\circ\text{C}$	$I_{(AV)}$	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	20						A
Maximum instantaneous forward voltage @ $I_{FM}=1.0\text{A}$	$V_F$	0.50	0.55		0.72		0.85	V
Repetitive peak reverse current at rated DC blocking voltage	$I_R$	0.3						mA
Typical junction capacitance	$C_J$	30						pF
Operating temperature range	$T_j$	- 55 --- + 125						°C
Storage temperature range	$T_{STG}$	- 55 --- + 150						°C

NOTE1. Measured at  $f=1.0\text{MHz}$ ,  $V_R=4.0\text{V}$

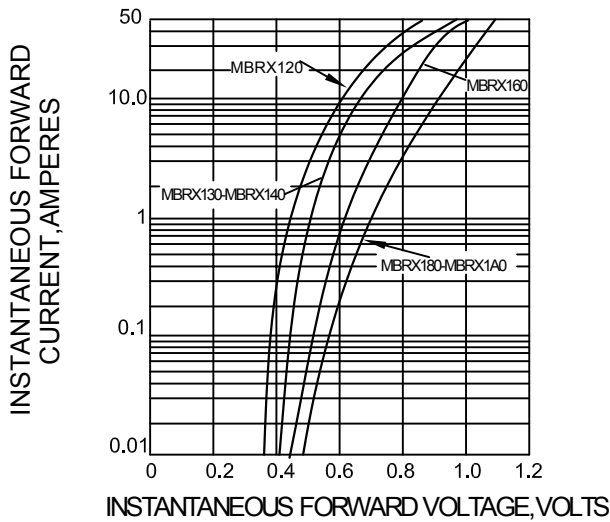
**FIG.1 – FORWARD DERATING CURVE**



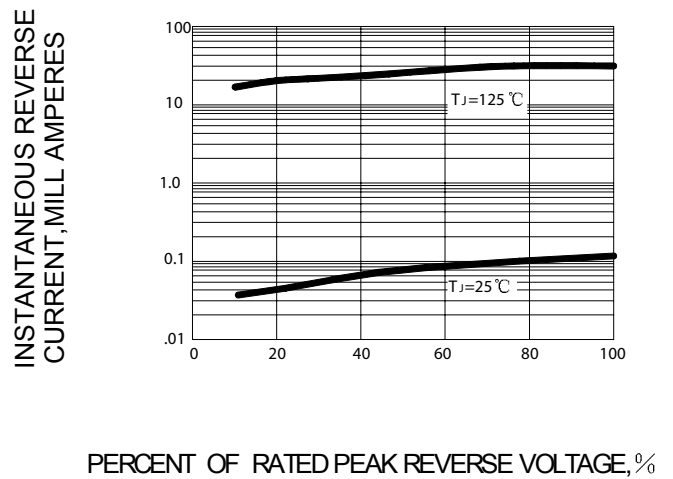
**FIG.2– PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

