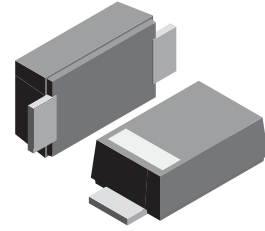


VOLTAGE RANGE: 20 - 100V
CURRENT: 1.0 A

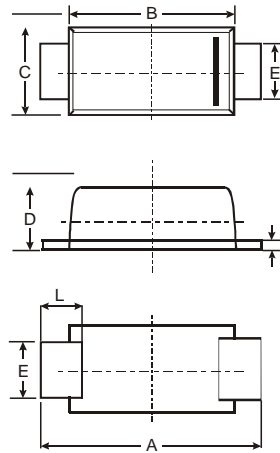
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:
 250°C/10 seconds, 0.375(9.5mm) lead length,
 5 lbs. (2.3kg) tension



Mechanical Data

- Case: JEDEC SOD-123FL molded plastic body over passivated junction
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0007 ounce, 0.02 grams



SOD-123FL			
Dim	Min	Max	Typ
A	3.50	3.80	3.65
B	2.60	2.90	2.75
C	1.70	1.90	1.80
D	0.09	1.10	1.00
E	0.08	1.10	0.095
H	0.12	0.20	0.16
L	0.07	0.09	0.08
All Dimensions in mm			



Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	MBRX120	MBRX130	MBRX140	MBRX160	MBRX180	MBRX1A0	Unit
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	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} =1.0A	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						
Storage temperature range	T _{STG}	- 55 --- + 150						

NOTE1. Measured at f=1.0MHz, V_R=4.0V

RATINGS AND CHARACTERISTIC CURVES MBRX120 THRU MBRX1A0

FIG.1 – FORWARD DERATING CURVE

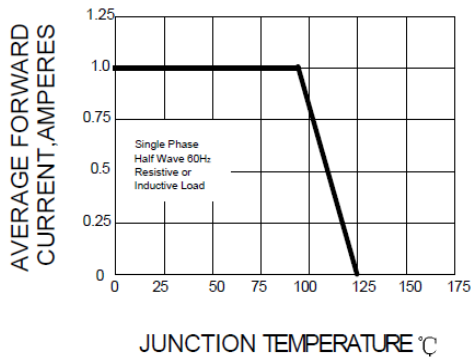


FIG.2- PEAK FORWARD SURGE CURRENT

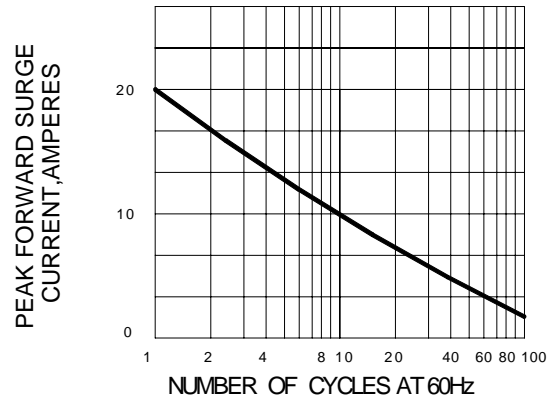


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

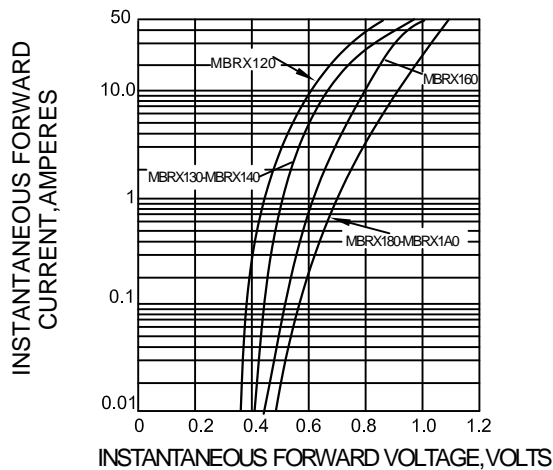


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

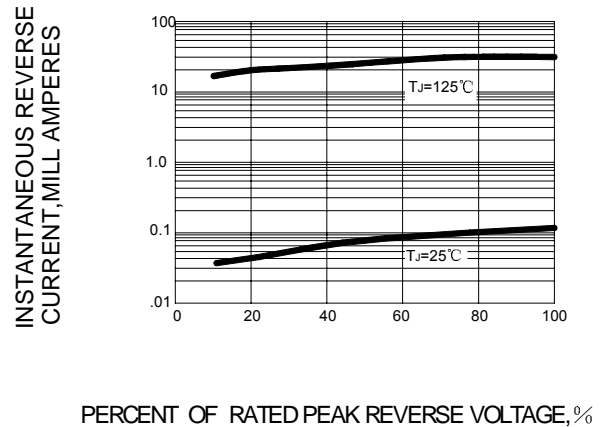


FIG.5-TYPICAL JUNCTION CAPACITANCE

