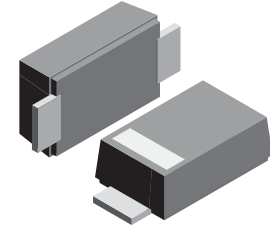


VOLTAGE RANGE: 20 - 100V
CURRENT: 0.5 A

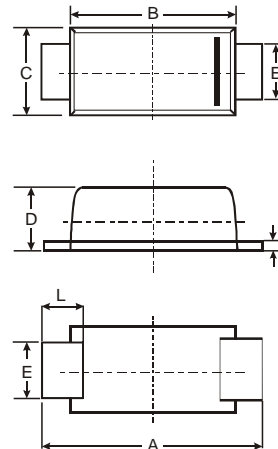


Features

- 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	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
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	MBRX0520	MBRX0530	MBRX0540	MBRX0560	MBRX0580	MBRX05100	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)	0.5						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} =0.5A	V _F	0.45	0.55	0.70	0.80			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 MBRX0520 THRU MBRX05100

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

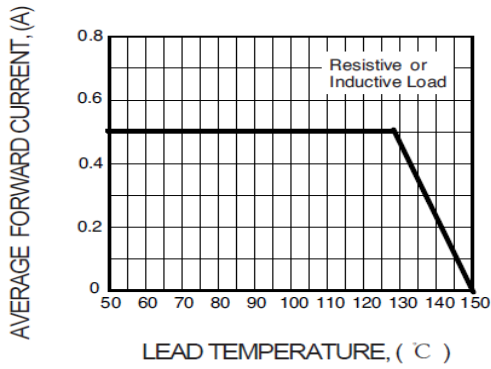


FIG.2- PEAK FORWARD SURGE CURRENT

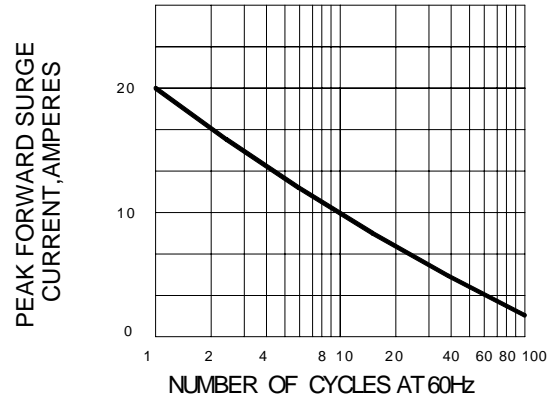


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

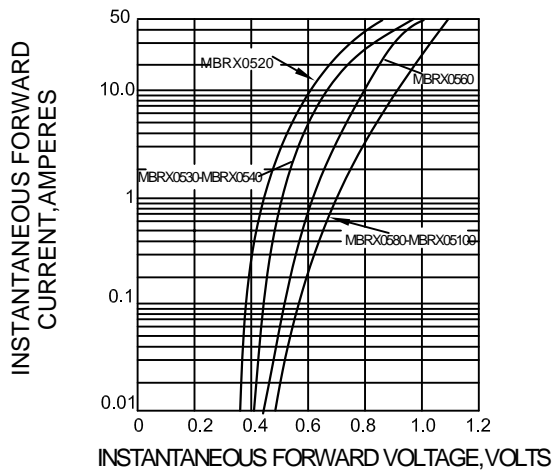


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

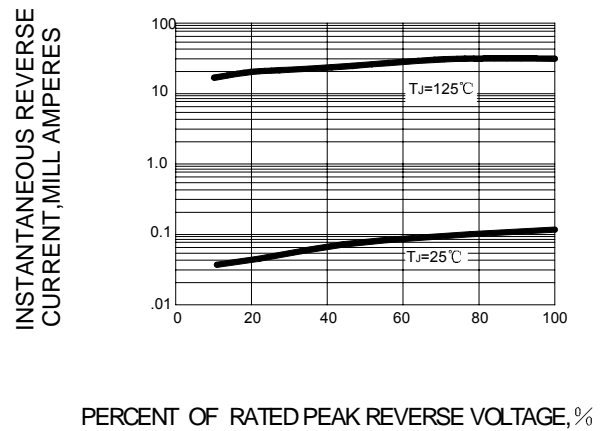


FIG.5-TYPICAL JUNCTION CAPACITANCE

