

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



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MOV



GDT



PLED

MBRX120-MS THRU MBRX1A0-MS

Product specification

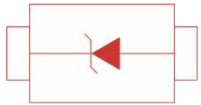
Features

- 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:
50°C/10 seconds, 0.37"5(9.5mm) lead length,
5 lbs. (2.3kg) tension

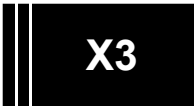
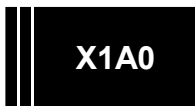
MECHANICAL DATA

- 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

Reference News

SOD-123FL	Schematic Diagram
	

Marking

MBRX120-MS	MBRX130-MS	MBRX140-MS
		
MBRX160-MS	MBRX180-MS	MBRX1A0-MS
		

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-MS	MBRX130-MS	MBRX140-MS	MBRX160-MS	MBRX180-MS	MBRX1A0-MS	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						p F
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-MS THRU MBRX1A0-MS

FIG.1 – FORWARD DERATING CURVE

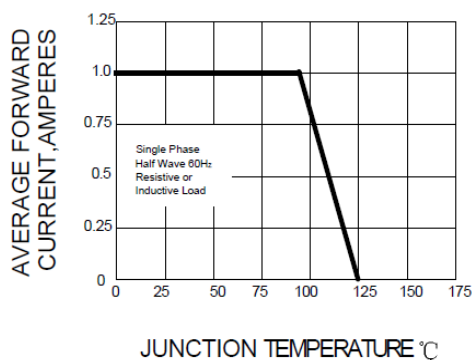


FIG.2-- PEAK FORWARD SURGE CURRENT

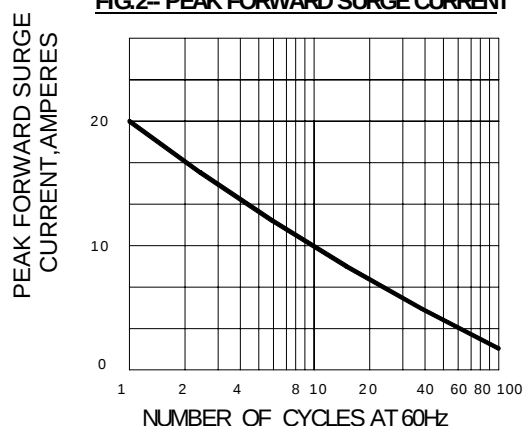


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

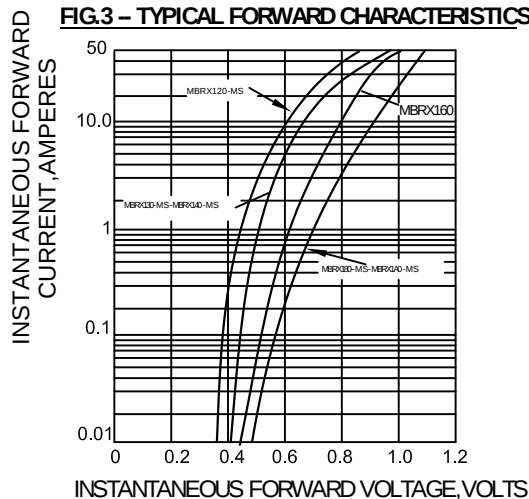


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

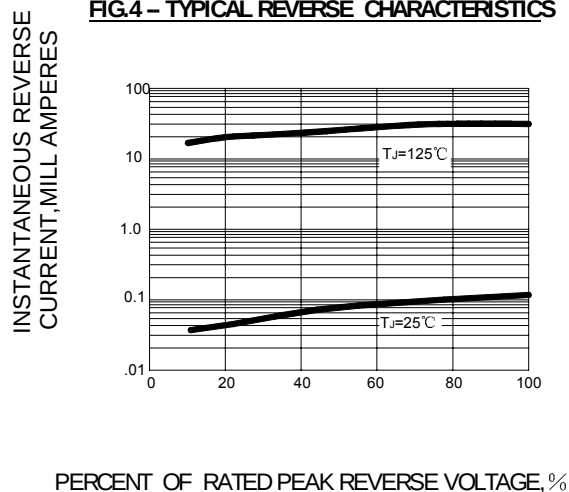
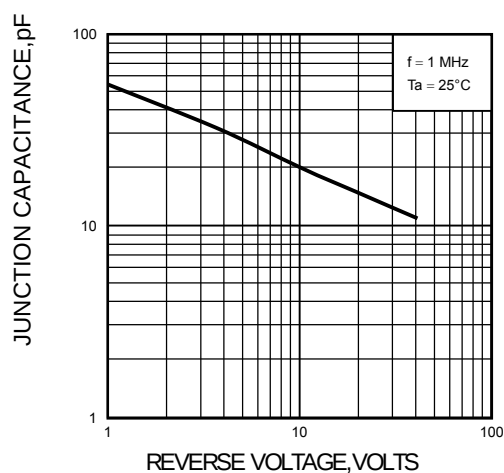
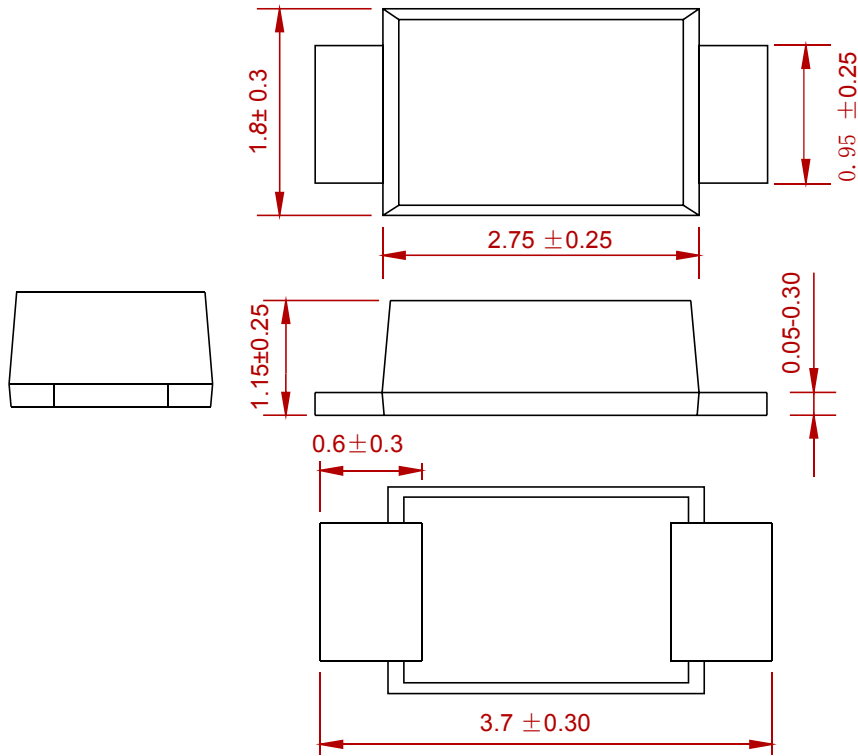
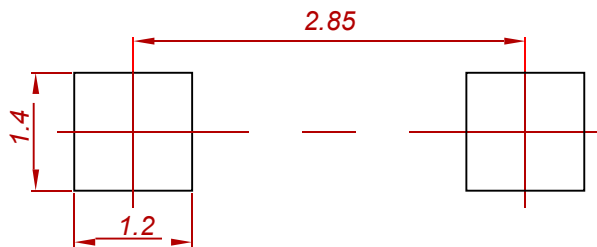


FIG.5-TYPICAL JUNCTION CAPACITANCE



PACKAGE MECHANICAL DATA


Dimensions in millimeters

Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MBRX120-MS THRU MBRX1A0-MS	SOD-123FL	3000

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