上海雷卯电子科技有限公司

SHANGHAI LEIDITECH ELECTRONICS CO.,LTD

MBRX120 THRU MBRX160

1.0 Amp Schottky Barrier Rectifier 20 to 60 Volts

Features

- Lead Free Finish/RoHS Compliant (Note1)("P"Suffix designates Compliant. See ordering information)
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Low Forward Voltage
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1

Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 5°C/W Junction to Lead

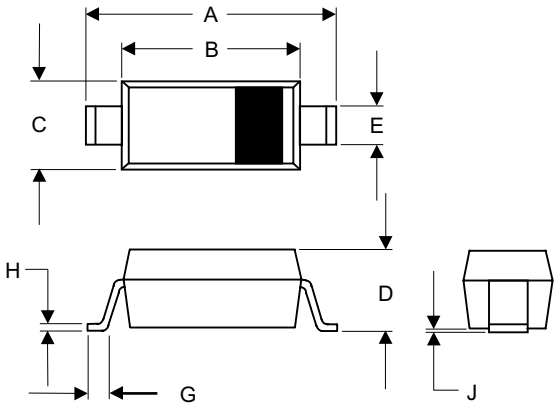
Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX120	X2	20V	14V	20V
MBRX130	X3	30V	21V	30V
MBRX140	X4	40V	28V	40V
MBRX160	X6	60V	42V	60V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_J=90°C
Peak Forward Surge Current	I_{FSM}	20A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBRX120 MBRX130 MBRX140 MBRX160	V_F	0.50V 0.55V 0.55V 0.72V	I_{FM}=1.0A T_A=25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.3mA	T_J=25°C
Typical Junction Capacitance	C_J	30pF	Measured at 1.0MHz, V_R=4.0V

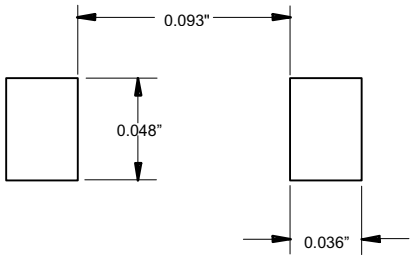
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

SOD123



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

SUGGESTED SOLDER PAD LAYOUT



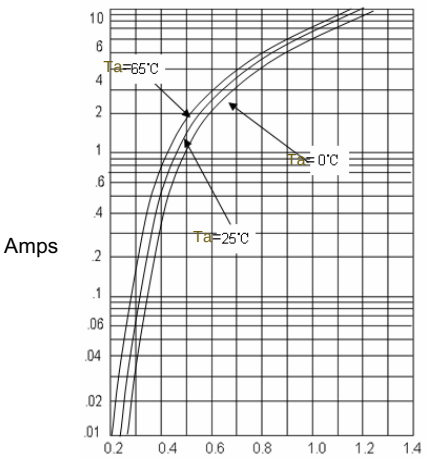
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MBRX120 thru MBRX160

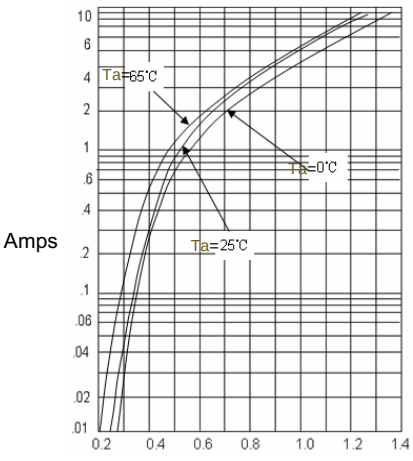
Figure 1
Typical Forward Characteristics

MBRX120



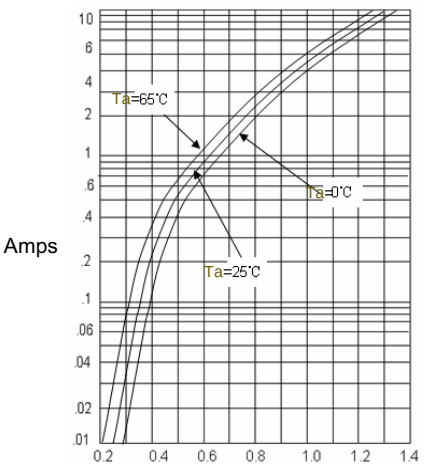
Instantaneous Forward Current -VS
Instantaneous Forward Voltage

MBRX130~140



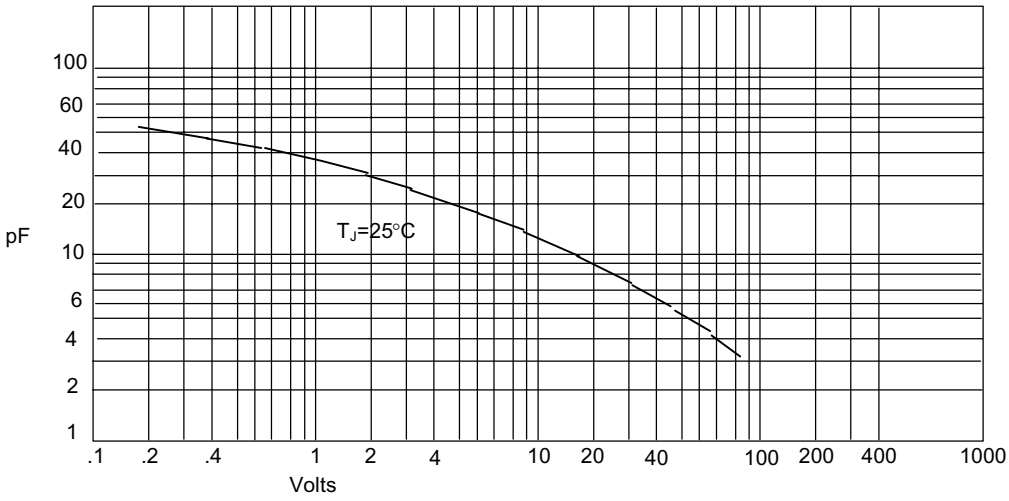
Instantaneous Forward Current -VS
Instantaneous Forward Voltage

MBRX160



Instantaneous Forward Current -VS
Instantaneous Forward Voltage

Figure 2
Junction Capacitance

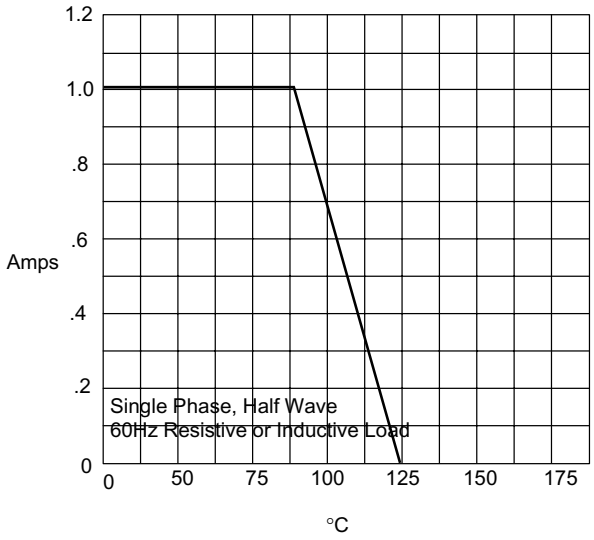


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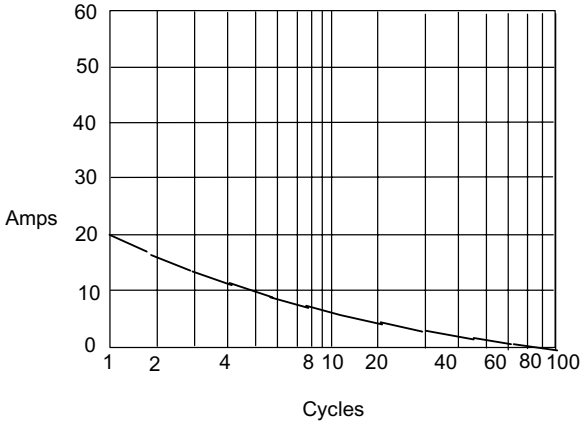
MBRX120 thru MBRX160

Figure 3
Forward Derating Curve



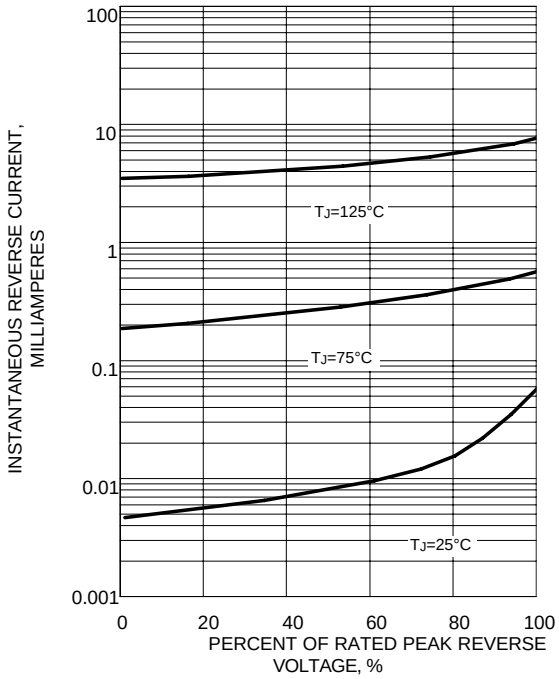
Average Forward Rectified Current - Amperes*versus*
Ambient Temperature -°C

Figure 4
Peak Forward Surge Current



Peak Forward Surge Current - Amperes*versus*
Number Of Cycles At 60Hz - Cycles

FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



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SURFACE MOUNT

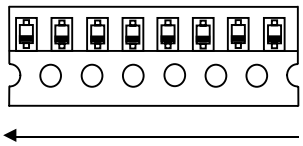
SURFACE MOUNT

TYPE	TAPE SIZE (mm)	BULK/TUBE QUANTITY	7 INCH REEL QUANTITY	13 INCH REEL QUANTITY
SOD123	8	-----	3000	-----

TAPE DIMENSIONS AND ORIENTATION

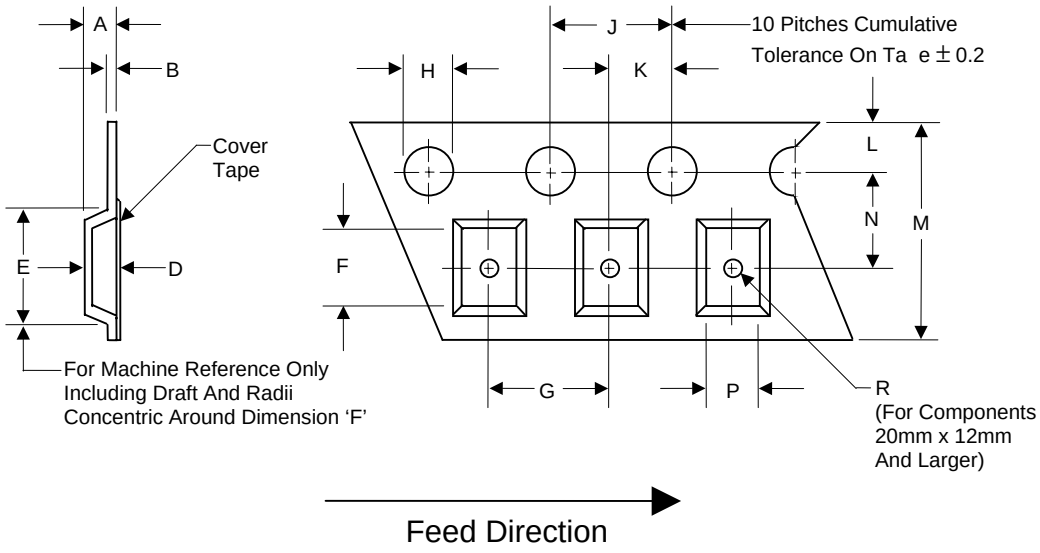
8mm Tape (in millimeters)

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DIRECTION OF UNREELING

Embossed Carrier Tape Specifications (8mm Tape)



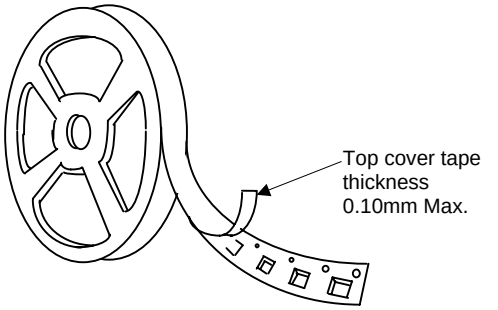
Tape Size	H	L	J	B (Max)	D, F, P	Constant Dimensions
8	1.5 +0.1, -0.0	1.75±0.10	4.0±0.1	0.600	See Note 1	

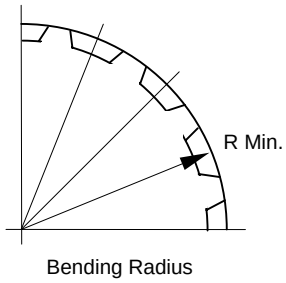
Tape Size	E (Max)	R (Min)	N	A (Max)	K	M	Variable Dimensions
8mm	4.2	1.0	3.5±0.05	2.4	2.0±0.05	8.0±0.30	

Tape Size	G			
	4.0±0.10	8.0±0.10	12.0±0.10	16.0±0.10
8mm	X			

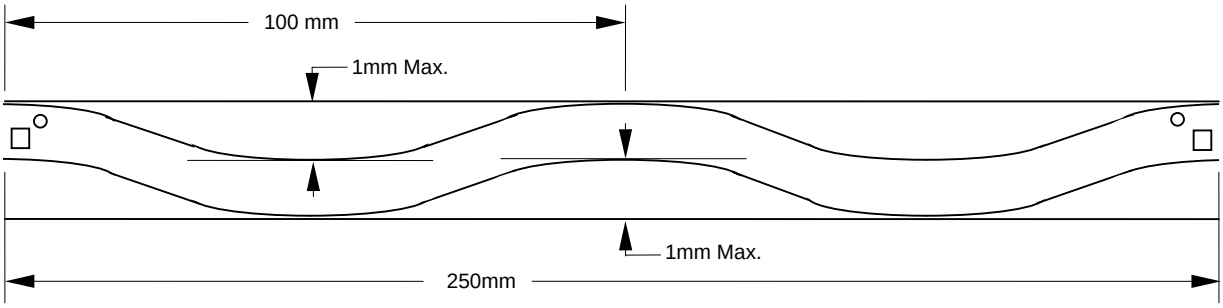
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SURFACE MOUNT



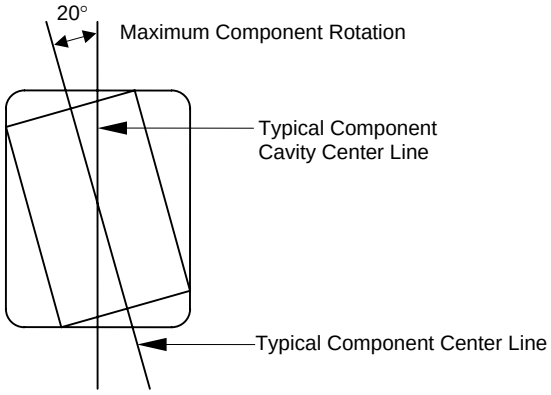


Tape Size	R Min.
8mm	25mm



Camber (Top View)

Allowable camber to be 1mm/100mm non-accumulative over 250mm



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