

**Features**

- Low Forward Voltage
- Lead Free Finish/RoHS Compliant
- For Surface Mount Application and High Current Capability



SOD-323 top view



Schematic diagram

**Marking**

MBRX0520:2.	MBRX0530:3.	MBRX0540:4.	MBRX0560:6.
			

The marking bar indicates the cathode



Halogen-Free

**Maximum Ratings ( Ta=25°C unless otherwise noted )**

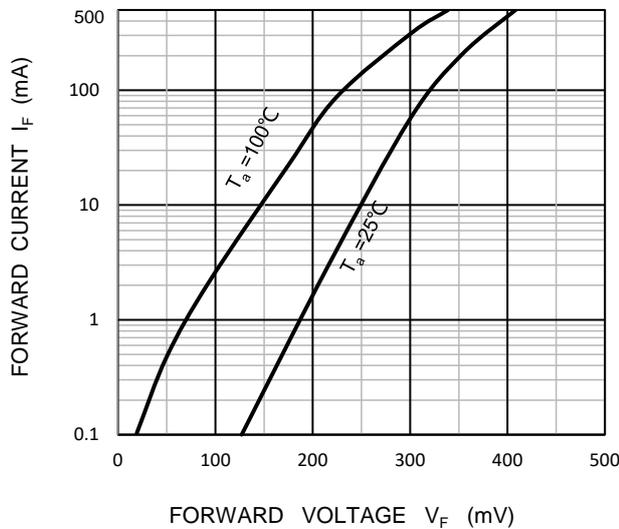
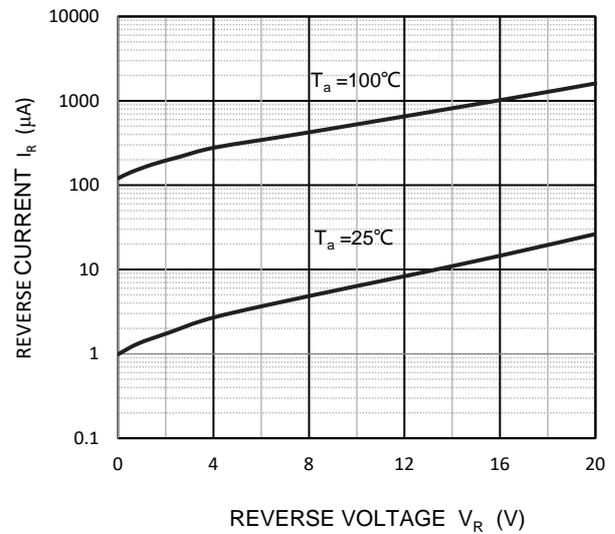
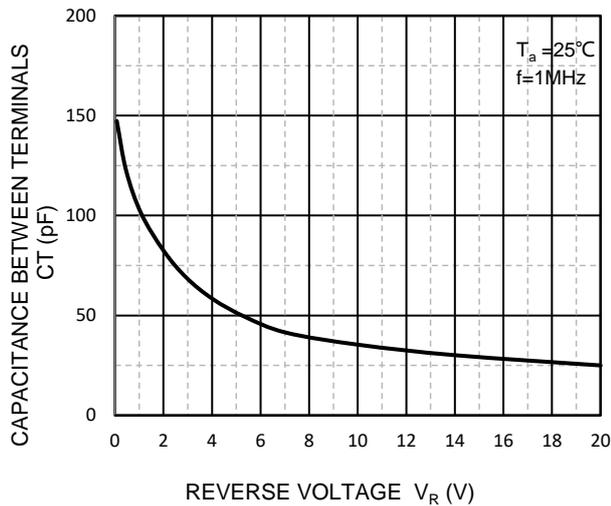
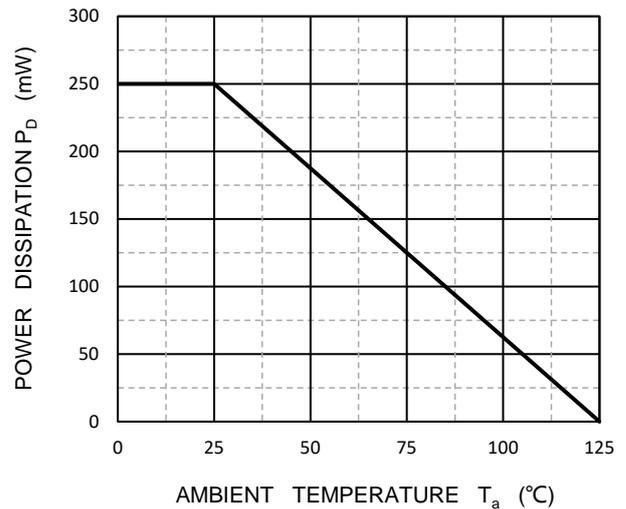
Symbol	Parameter	MBRX 0520	MBRX 0530	MBRX 0540	MBRX 0560	Unit
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	20	30	40	60	V
V <sub>R(RMS)</sub>	RMS Reverse Voltage	14	21	28	42	
I <sub>O</sub>	Average Rectified Output Current	0.5				A
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current@t= 8.3ms	5				A
P <sub>D</sub>	Power Dissipation	250				mW
R <sub>ΘJA</sub>	Thermal Resistance from Junction to Ambient	400				°C/W
T <sub>J</sub>	Operating Junction Temperature Range	-40~+125				°C
T <sub>stg</sub>	Storage Temperature Range	-55~+150				°C

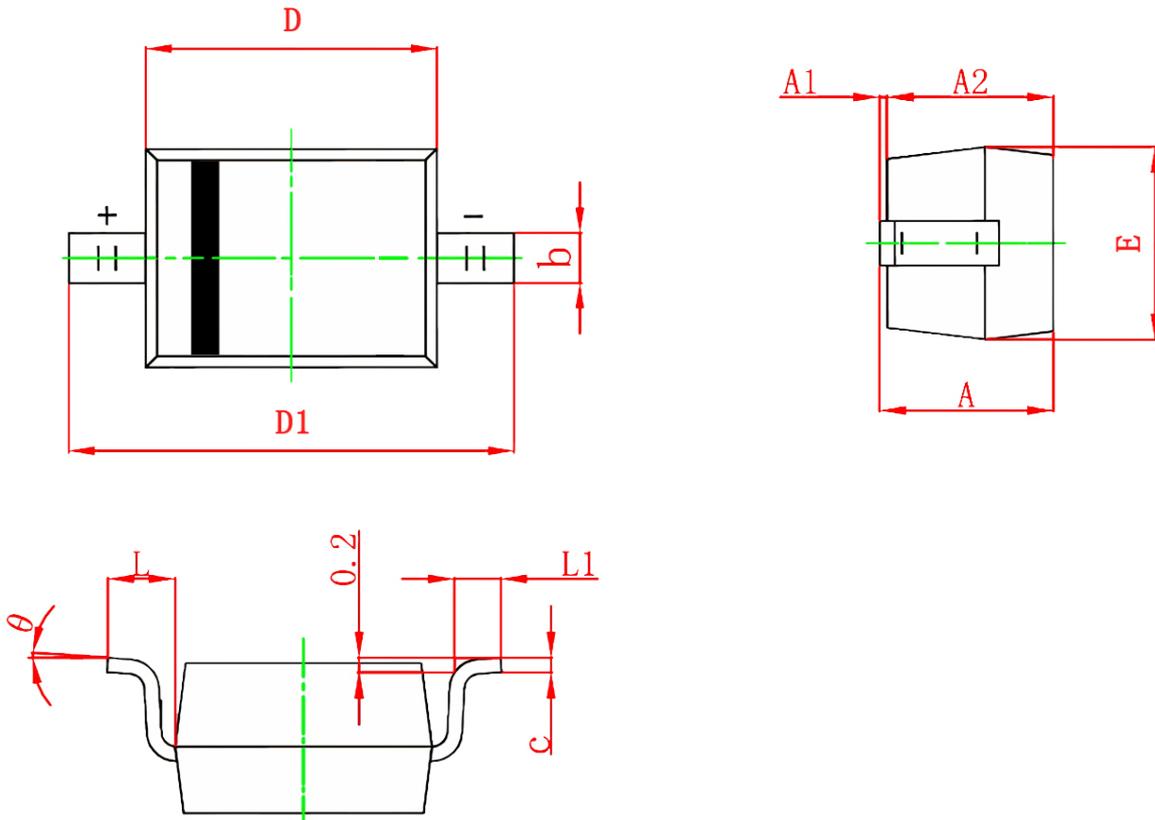
**Electrical Characteristics Ta =25°C unless otherwise specified**

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V <sub>(BR)</sub>	Reverse voltage MBRX0520 MBRX0530 MBRX0540 MBRX0560	I <sub>R</sub> =1mA	20	--	--	V
			30			
			40			
			60			
I <sub>R</sub>	Reverse current MBRX0520 MBRX0530 MBRX0540 MBRX0560	V <sub>R</sub> =20V	--	0.08	mA	
		V <sub>R</sub> =30V	--			
		V <sub>R</sub> =40V	--			
		V <sub>R</sub> =60V	--			
V <sub>F</sub>	Forward voltage MBRX0520 MBRX0530 MBRX0540 MBRX0560	I <sub>F</sub> =0.5A	--	--	0.45	V
			--		0.55	
			--		0.55	
			--		0.7	
C <sub>T</sub>	Total capacitance	V <sub>R</sub> =4V, f=1MHZ	--	30	--	pF

**Ordering Information (Example)**

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MBRX0520	SOD-323	2	3,000	45,000	180,000	7"reel
MBRX0530		3	3,000	45,000	180,000	7"reel
MBRX0540		4	3,000	45,000	180,000	7"reel
MBRX0560		6	3,000	45,000	180,000	7"reel

**Typical Operating Characteristics**
**Forward Characteristics**

**Reverse Characteristics**

**Capacitance Characteristics**

**Power Derating Curve**


**SOD-323 Package information**


Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	-	1.100	-	0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.600	1.800	0.063	0.071
D1	2.500	2.750	0.098	0.108
E	1.200	1.400	0.047	0.055
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
$\theta$	0°	8°	0°	8°