

**Features**

- Halogen Free. "Green" Device (Note 1)
- High Surge Capability
- Super Low Forward Voltage Drop
- Low-Profile-Package
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

**Maximum Ratings**

- Operating Junction Temperature Range: -65°C to +125°C
- Storage Temperature Range: -65°C to +125°C
- Typical Thermal Resistance(Note2):60°C/W Junction to Ambient
- Typical Thermal Resistance(Note3):180°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX120LF	F02	20V	14V	20V

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	1A	
Surge Forward Current	$I_{FSM}$	12A	at 8.3ms
Power Dissipation	$P_D$	1.67W	Note2
Power Dissipation	$P_D$	556mW	Note3
Forward Voltage	$V_F$	0.2V(Typ)	$I_F=0.1A$
		0.3V(Typ)	$I_F=0.7A$
		0.32V(Typ)	$I_F=1A$
		0.36V(Max)	
Leakage Current	$I_R$	0.26mA(Typ) 1mA(Max)	$V_R=5V$ $V_R=20V$
Typical Junction Capacitance	$C_T$	75pF(Typ)	$V_R=10V, f=1.0MHz$

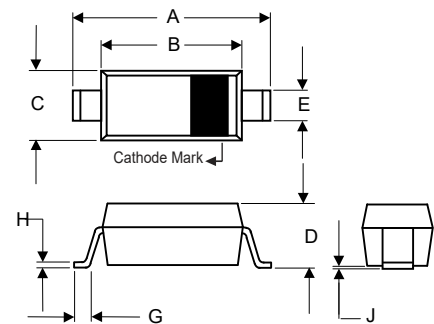
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Notes: 2. Part mounted on 50.8mm X 50.8mm GETEK board with 25.4mm X 25.4mm copper pad.  $T_A = 25^\circ C$ .

Notes: 3. Part mounted on FR-4 board with 1.8mm X 2.5mm copper pads.  $T_A = 25^\circ C$ .

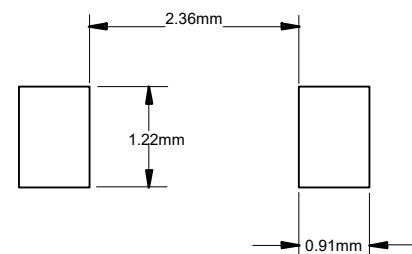
**Low Forward Voltage Drop Schottky Barrier Diodes**

**SOD-123**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

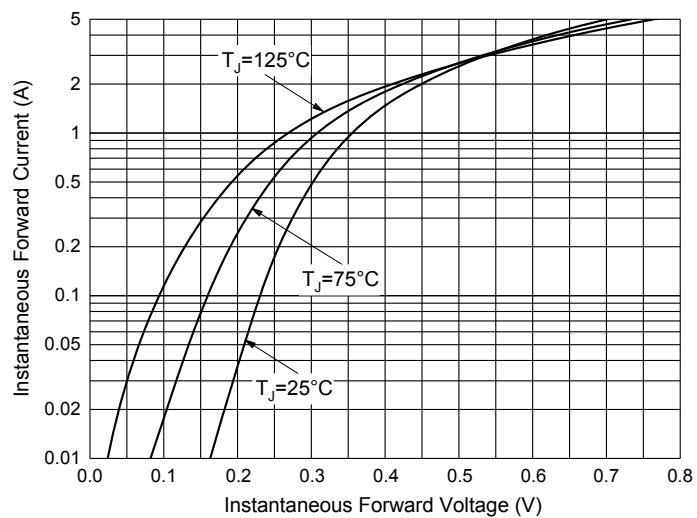
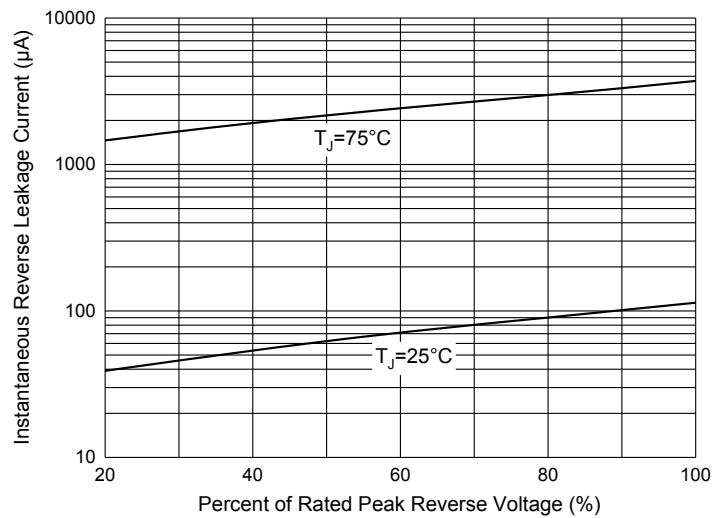


Fig. 2 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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