

■ **FEATURES**

- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

■ **TYPICAL APPLICATIONS**

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

■ **MECHANICAL DATA**

- **Package:** TO-252
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■ **MAXIMUM RATINGS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR2060CD
Device marking code			MBR2060CD
Repetitive Peak Reverse Voltage	VRRM	V	60
Average Rectified Output Current @60Hz sine wave, R-load, $T_a=25^\circ\text{C}$	I_O	A	20
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, $T_a=25^\circ\text{C}$	IFSM	A	130
Current Squared Time @1ms \leq t<8.3ms $T_j=25^\circ\text{C}$,	I^2t	A ² s	70
Storage Temperature	Tstg	$^\circ\text{C}$	-55 ~ +150
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~ +150

■ **ELECTRICAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR2060CD
Maximum instantaneous forward voltage drop per diode	VFM	V	IFM=10.0A	0.75
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{VRRM} $T_a=25^\circ\text{C}$	0.2
	I _{RRM2}		V _{RM} =V _{VRRM} $T_a=125^\circ\text{C}$	50

■ **THERMAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR2060CD	
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	$^\circ\text{C/W}$	5.0

■ **OUTLINE DIMENSIONS**

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR2060CD	Approximate 0.32	2500	2500	25000	Reel

■ **CHARACTERISTICS (TYPICAL)**

FIG1:Io -Tc Curve

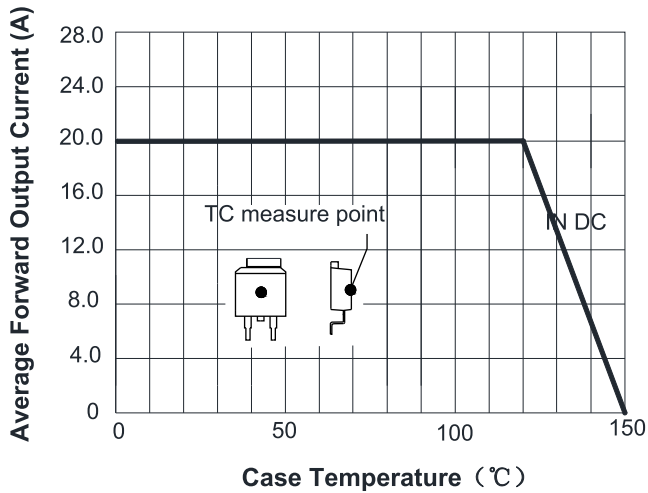


FIG2: Surge Forward Current Capability

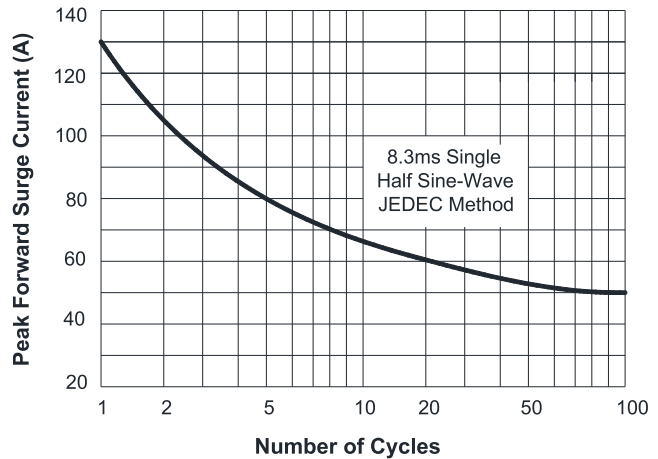


FIG3: Forward Voltage

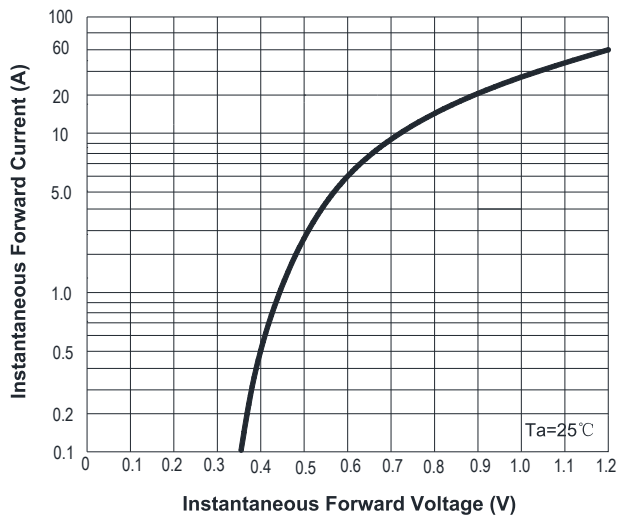
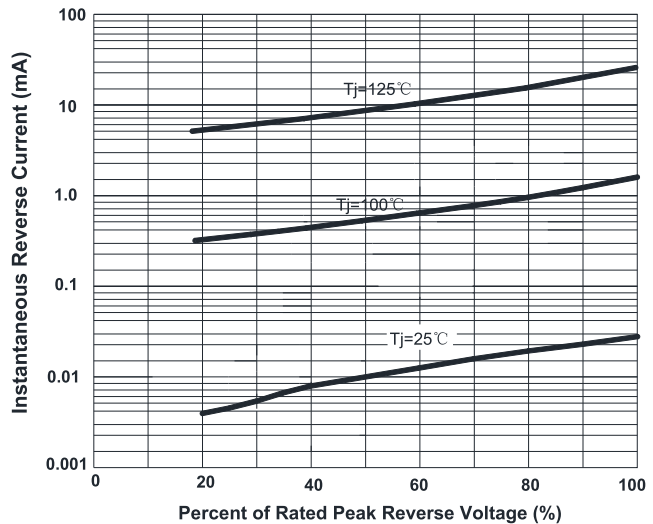
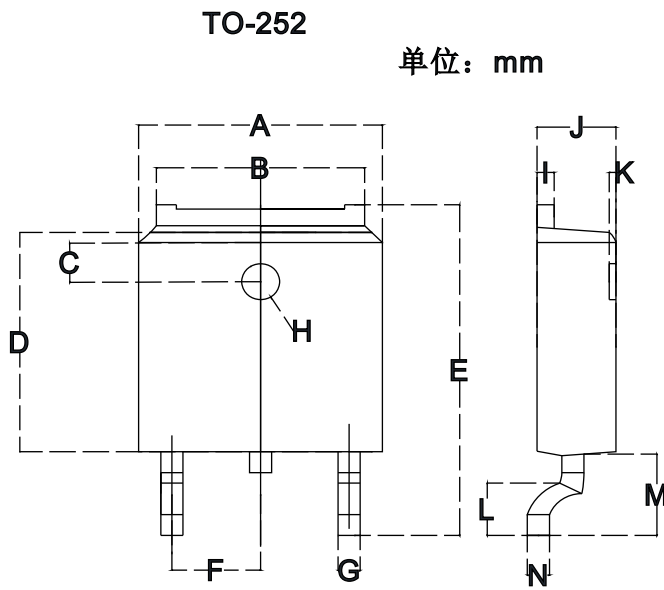


FIG4: Typical Reverse Characteristics



■ **OUTLINE DIMENSIONS**



TO-252		
Dim	Min	Max
A	6.500	6.700
B	5.100	5.460
C	1.400	1.800
D	6.000	6.200
E	10.000	10.400
F	2.166	2.366
G	0.660	0.860
H	Φ1.050	Φ1.350
I	0.460	0.580
J	2.200	2.400
K	0	0.300
L	0.890	2.290
M	2.730	3.080
N	0.430	0.580