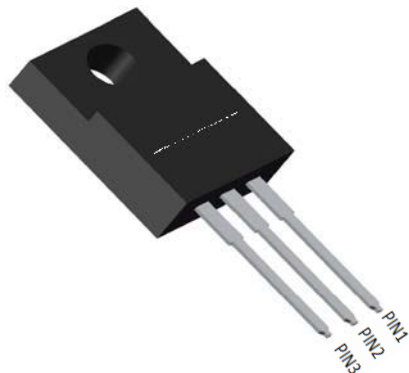


Schottky Diodes



Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

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

Mechanical Data

- **Package:** ITO-220AB-X
Molding compound meets UL 94 V-0 flammability rating, -
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR20100FCTS	MBR20150FCTS	MBR20200FCTS
Device marking code			MBR20100FCTS	MBR20150FCTS	MBR20200FCTS
Repetitive Peak Reverse Voltage	VRRM	V	100	150	200
Average Rectified Output Current @60Hz sine wave, R-load, T _a =25°C	I _O	A	20		
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T _a =25°C	I _{FSM}	A	130		
Current Squared Time @1ms≤t≤8.3ms T _j =25°C,	I ² t	A ² s	70		
Storage Temperature	T _{stg}	°C	-55 ~ +175		
Junction Temperature	T _j	°C	-55 ~ +175		

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR20100FCTS	MBR20150FCTS	MBR20200FCTS
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =10.0A	0.85	0.9	0.95
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	V _{RM} =V _{RRM} T _a =25°C	0.1		
	I _{RRM2}		V _{RM} =V _{RRM} T _a =125°C	20		

Note1:Pulse test:300uS pulse width,1% duty cycle

Note2:Pulse test:pulse width 40mS

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MBR20100FCTS	MBR20150FCTS	MBR20200FCTS
Thermal Resistance	Between junction and case	R _{θJ-C}	°CW	4.0		

■ Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR20100FCTS THRU MBR20200FCTS	Approximate 1.6	50	1000	5000	Tube

■ Characteristics (Typical)

FIG1: I_o -T_c Curve

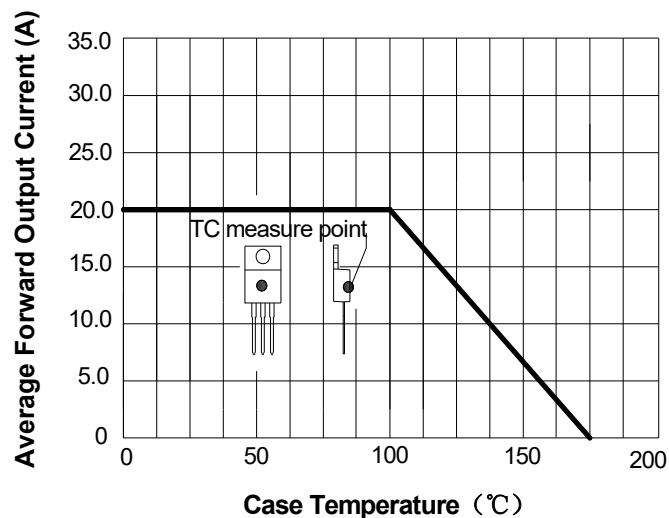


FIG2: Surge Forward Current Capability

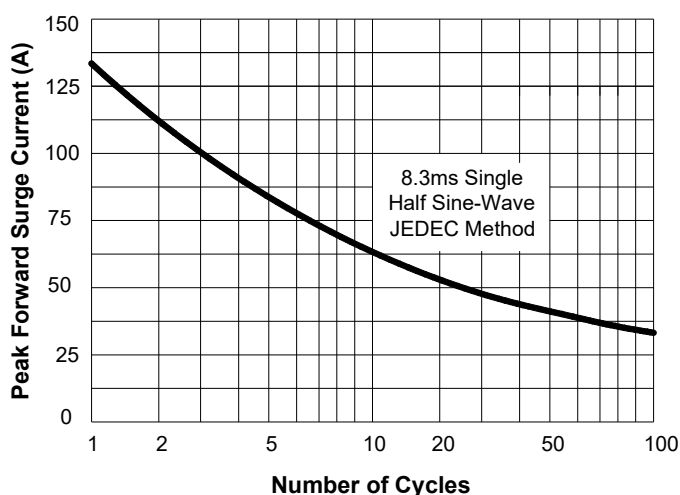


FIG3: Forward Voltage

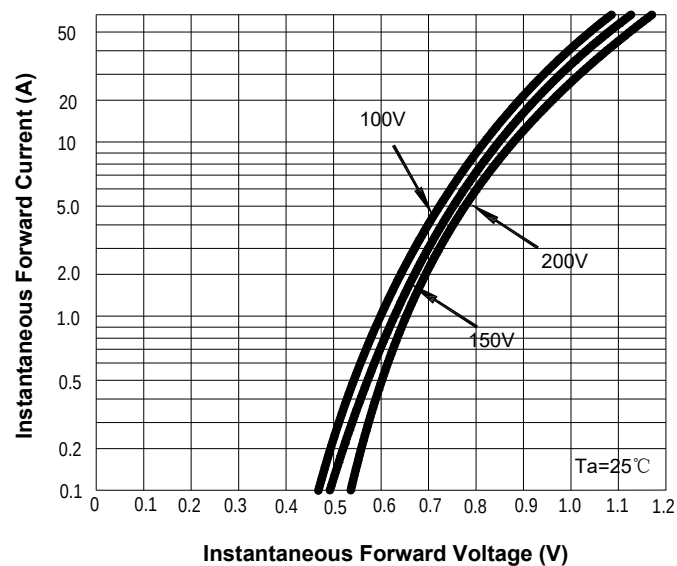
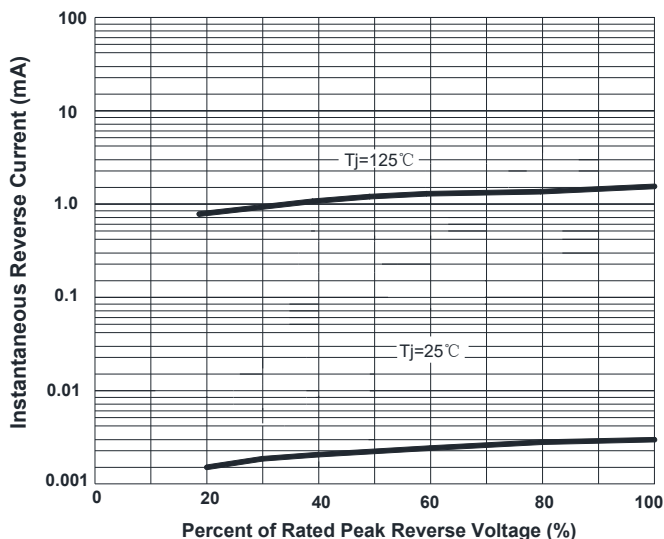
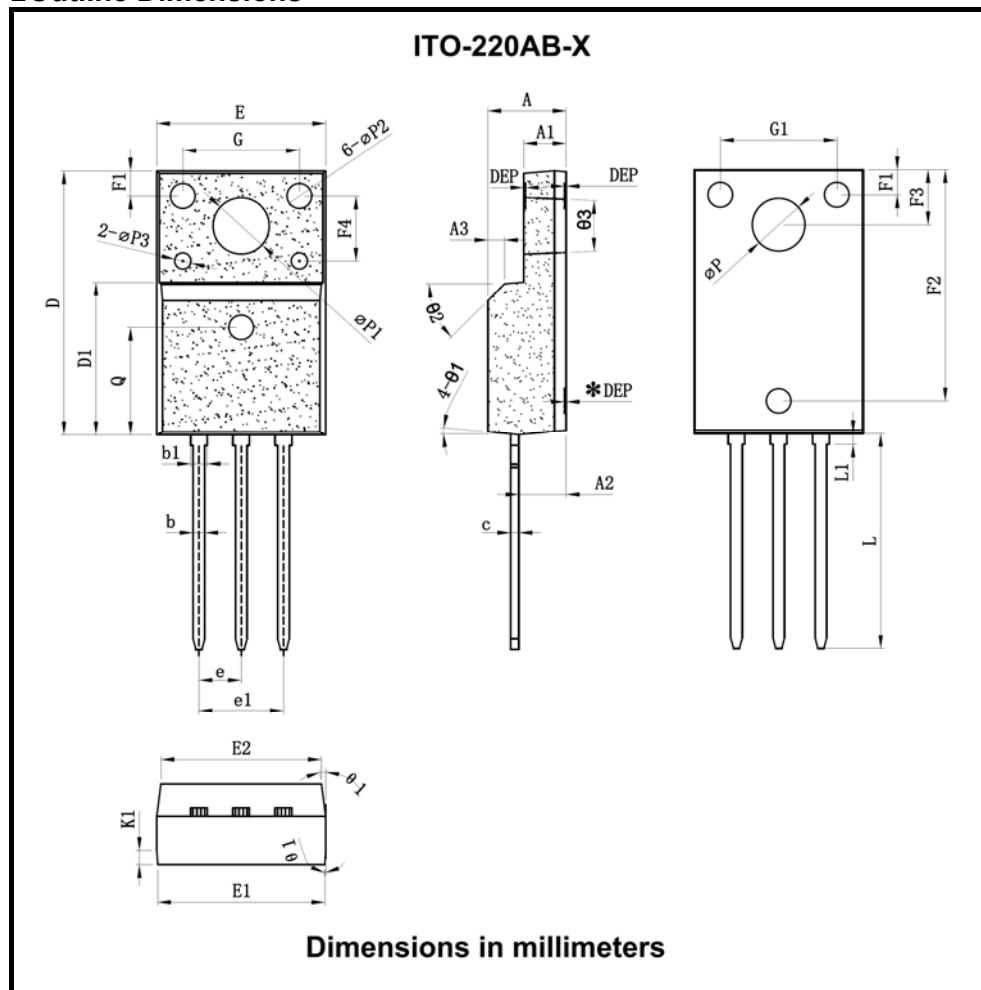


FIG4: Instantaneous Reverse Characteristics



■Outline Dimensions



ITO-220AB-X (W5038)		
Dim	Min	Max
A	4.60	4.80
A1	2.34	2.74
A2	2.56	2.93
b	0.60	0.80
b1	0.90	1.10
b2	0.90	1.20
C	0.45	0.55
D	15.67	16.07
D1	9.04	9.20
e	2.50	2.58
e1	5.08 REF	
E	10.06	10.26
E1	9.94	10.20
E2	9.30	9.50
F1	1.40	1.60
F2	13.80	14.00
F3	3.20	3.40
F4	3.70	4.10
G1	6.90	7.10
K1	0.65	0.75
L	12.78	13.18
L1	1.80	2.20
Q	6.50 REF	
ΦP	3.08	3.28
ΦP2	1.45	1.65
ΦP1	3.30	3.50
ΦP3	0.95	1.35
θ1	3°	7°

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