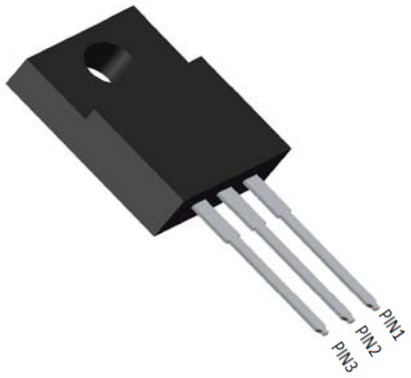
MBR3020FCT THRU MBR3065FCT

RoHS COMPLIANT

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
  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 (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBR3020 FCT	MBR3035 FCT	MBR3040 FCT	MBR3045 FCT	MBR3050 FCT	MBR3060 FCT	MBR3065 FCT
Device marking code			MBR3020FCT	MBR3035FCT	MBR3040 FCT	MBR3045 FCT	MBR3050 FCT	MBR3060 FCT	MBR3065 FCT
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	35	40	45	50	60	65
Average Rectified Output Current @60Hz sine wave, R-load, T_a=25℃	I_O	A	30						
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, T_a=25℃	I_{FSM}	A	200						
Current Squared Time @1ms≤t<8.3ms Tj=25℃,	I^2t	A^2s	167						
Storage Temperature	T_{stg}	℃	-55 ~ +150						
Junction Temperature	T_j	℃	-55 ~ +125				-55 ~ +150		

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBR3020 FCT	MBR3035 FCT	MBR3040 FCT	MBR3040 FCT	MBR3050 FCT	MBR3060 FCT	MBR3065 FCT
Maximum instantaneous forward voltage drop per diode	V_{FM}	V	I_{FM}=15.0A		0.65			0.75		
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	$V_{RM}=V_{RRM}$ T_a=25℃		0.2					
	I_{RRM2}		$V_{RM}=V_{RRM}$ T_a=100℃		20					

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

Note2:Pulse test:pulse widh 40mS

MBR3020FCT THRU MBR3065FCT

RoHS COMPLIANT

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	MBR3020FCT	MBR3035FCT	MBR3040FCT	MBR3045FCT	MBR3050FCT	MBR3060FCT	MBR3065FCT
Thermal Resistance	Between junction and case	$R_{\theta J-C}$	℃/W		4.0					

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MBR3020FCT THRU MBR3065FCT	Approximate 1.6	50	1000	5000	Tube

■Characteristics (Typical)

FIG1:Io -Tc Curve

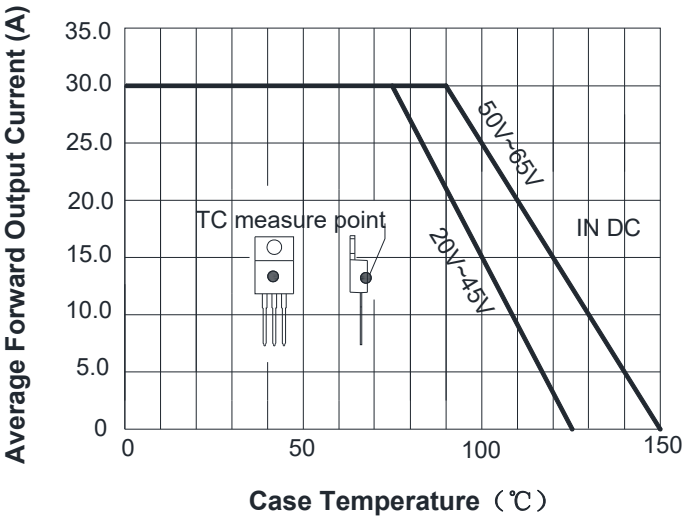


FIG2:Surge Forward Current Capability

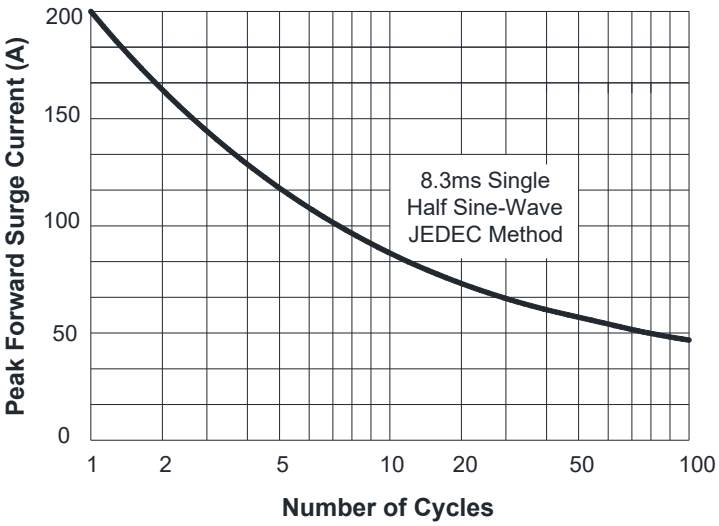


FIG3: Forward Voltage

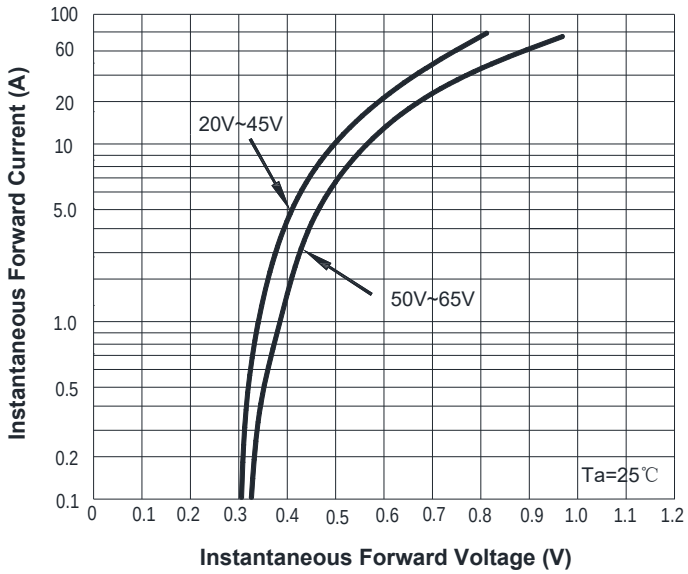
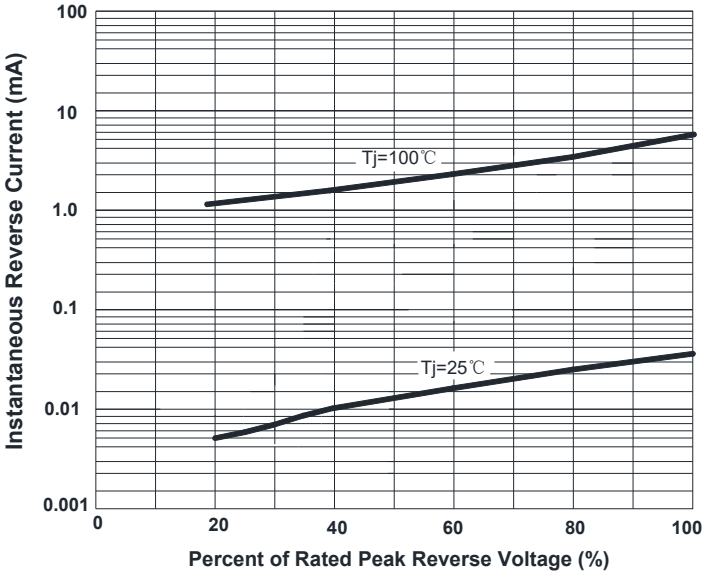
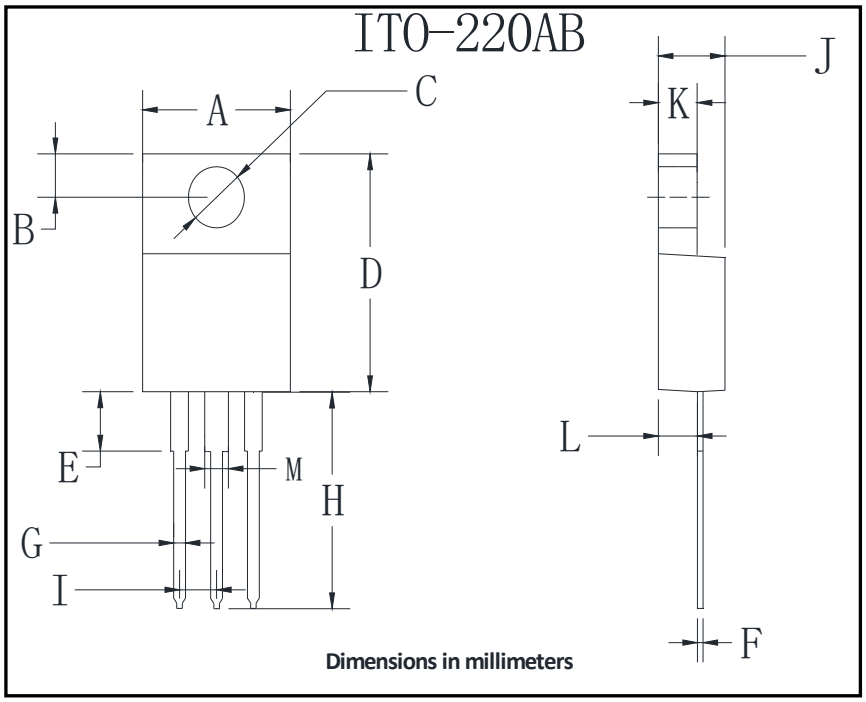


FIG.4: Typical Reverse Characteristics



■Outline Dimensions



ITO-220AB		
Dim	Min	Max
A	9.8	10.2
B	2.25	2.75
C	2.95	3.45
D	14.75	15.25
E	3.05	3.95
F	0.45	0.75
G	0.45	0.75
H	13.4	14.2
I	2.35	2.75
J	4.3	4.8
K	2.58	2.82
L	2.58	2.82
M	1.47	1.77

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