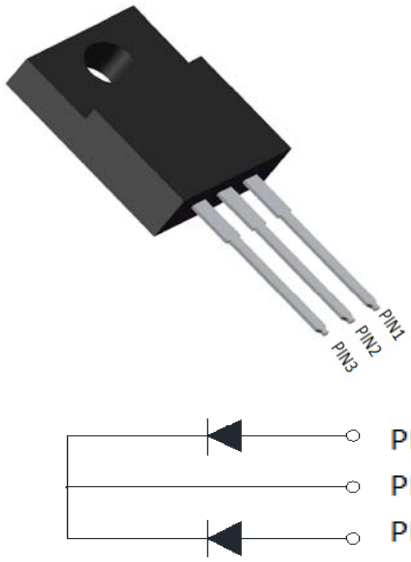
Schottky Diodes



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
- Halogen Free

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 (Tj=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRL3065FCT
Device marking code			MBRL3065FCT
Repetitive Peak Reverse Voltage	V_{RRM}	V	65
Average Rectified Output Current @60Hz sine wave, R-load, Tc=75℃	I_O	A	30
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycle, Tj=25℃	I_{FSM}	A	250
Surge(Non-repetitive)Forward Current @1ms，square wave, 1 time, Tj=25℃			500
Current Squared Time @1ms≤t≤8.3ms Tj=25℃	I^2t	A^2s	250
Storage Temperature	T_{stg}	℃	-55 ~ +150
Junction Temperature	Tj	℃	-55 ~ +150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	Min	Typ	Max
Peak Forward Voltage	V_{FM}	V	I_{FM}=15.0A Tj=25℃	0.4	0.57	0.6
			I_{FM}=15.0A Tj=125℃	-	0.53	0.58
DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	V_{RM}=V_{RRM} Tj=25℃	-	-	0.1
	I_{RRM2}		V_{RM}=V_{RRM} Tj=100℃	-	-	20
Junction capacitance	Cj	pF	1MHz and Applied Reverse Voltage of 4.0 V.D.C.	800	1220	1500

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

Note2:Pulse test:pulse widh 40mS

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

PARAMETER		SYMBOL	UNIT	MBRL3065FCT
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	℃/W	50.0
	Between junction and case	$R_{\theta J-C}$	℃/W	4.0

■Characteristics (Typical)

FIG1:Io -Tc Curve

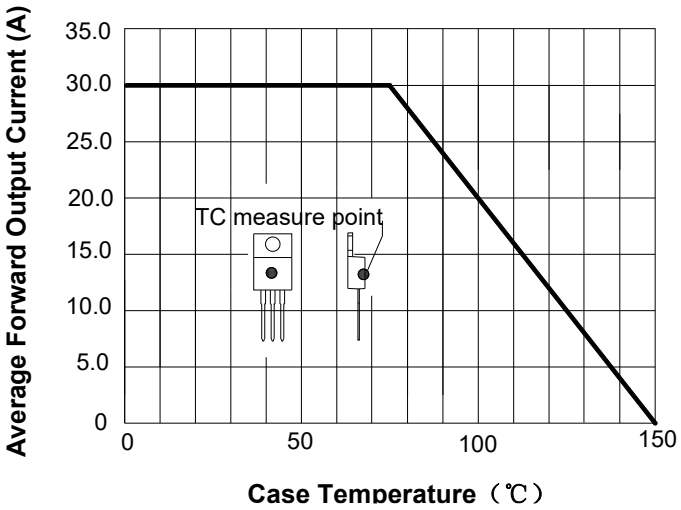


FIG2:Surge Forward Current Capability

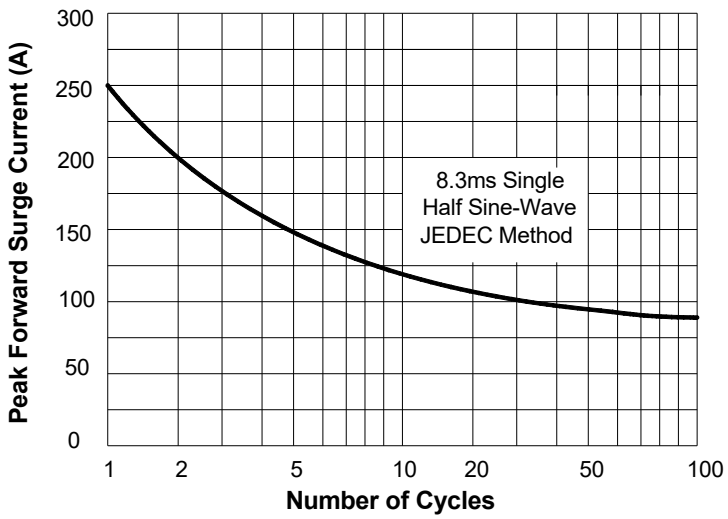


FIG3: Forward Voltage

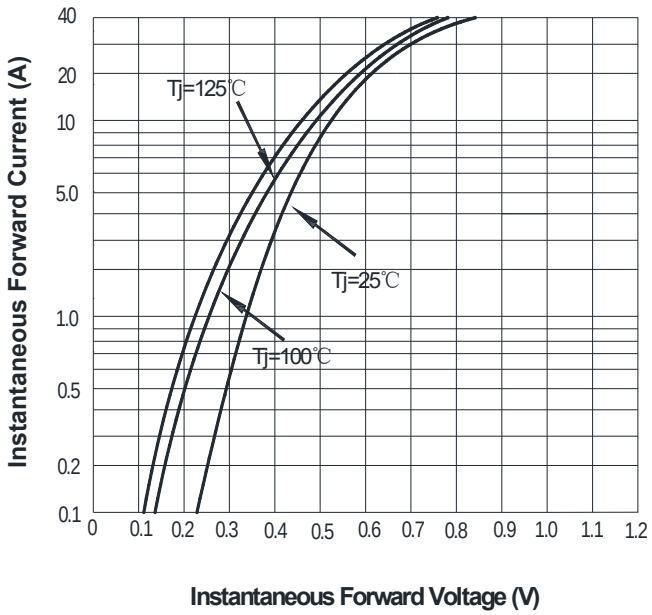


FIG.4: Instantaneous Reverse Characteristics

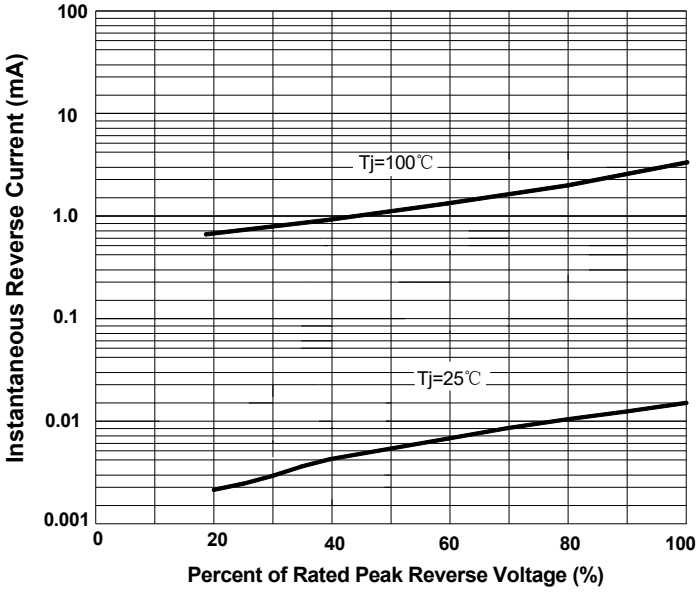
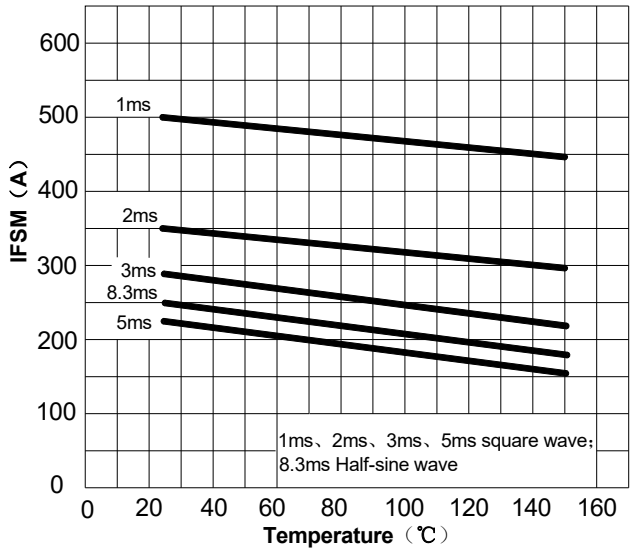
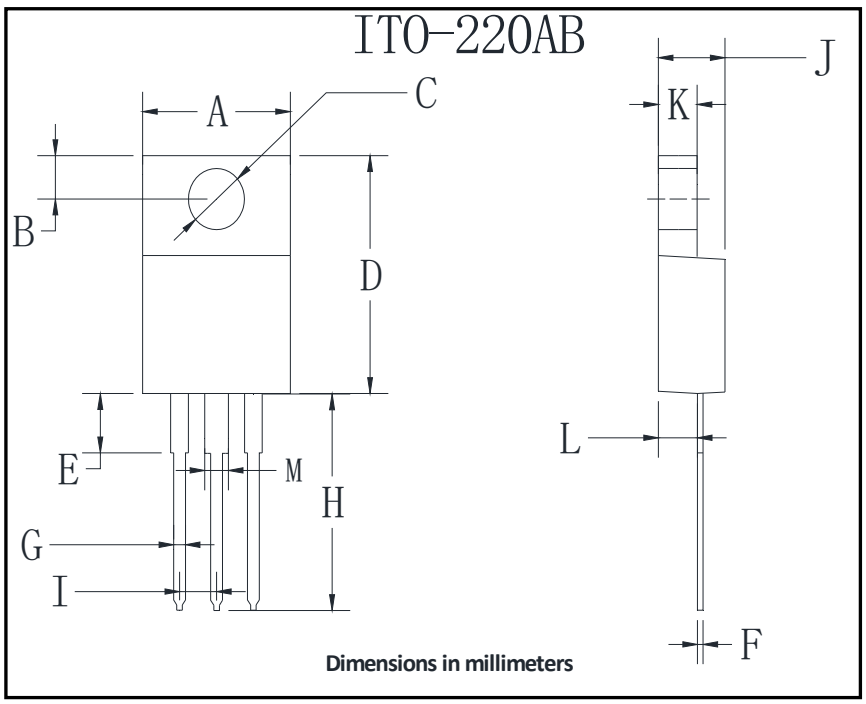


FIG.5: Maximum Non-Repetitve Peak Forword



■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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