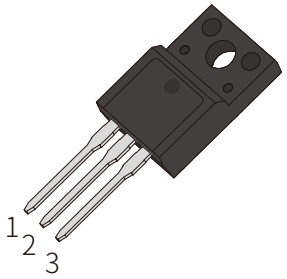
MBR3040FCT-MBR30200FCT

Schottky Barrier Rectifier

FEATURES

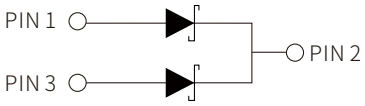
- Construction Utilizes Void-free Molded Plastic Technique
- Low Reverse Leakage
- High Forward Surge Current Capability



TO-220F

MECHANICAL DATA

- Case : Molded Plastic Body
- Polarity : Polarity Symbol Marking on Body
- Mounting Position : Any



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS (T_A=25°C)

Parameter		Symbol	MBR 3040FCT	MBR 3045FCT	MBR 3060FCT	MBR 30100FCT	MBR 30150FCT	MBR 30200FCT	Unit
Marking			MBR 3040FCT	MBR 3045FCT	MBR 3060FCT	MBR 30100FCT	MBR 30150FCT	MBR 30200FCT	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	40	45	60	100	150	200	V
Maximum RMS Voltage		V_{RMS}	28	31.5	42	70	105	140	V
Maximum DC Blocking Voltage		V_{DC}	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current At T_C=110°C	per device	$I_{(AV)}$	30.0						A
	per diode		15.0						
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load		I_{FSM}	200.0						A
Maximum Instantaneous Forward Voltage at 15.0A		V_F	0.65		0.75	0.85	0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A =25°C	I_R	0.5			0.05			mA
	T_A =100°C		50			10			mA
Typical Thermal Resistance		$R_{\theta JC}$	3.5						°C/W
Operating Junction Temperature Range		T_J	-55 to +150						°C
Storage Temperature Range		T_{STG}	-55 to +150						°C

CHARACTERISTIC CURVES

Fig.1 -Derating Curve Output Rectified Current

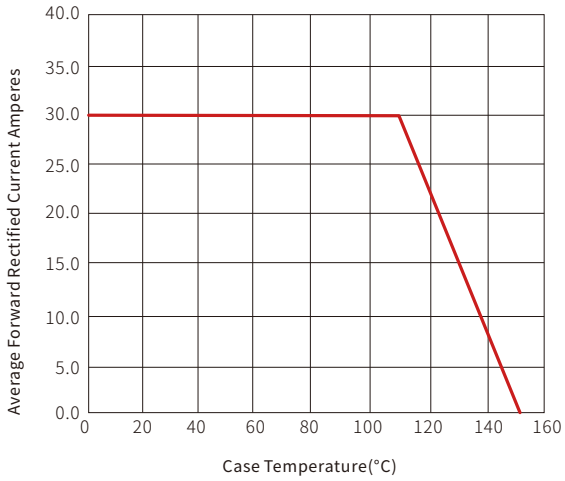


Fig.2 -Maximum Non-repetitive Peak Forward Surge Current Perleg

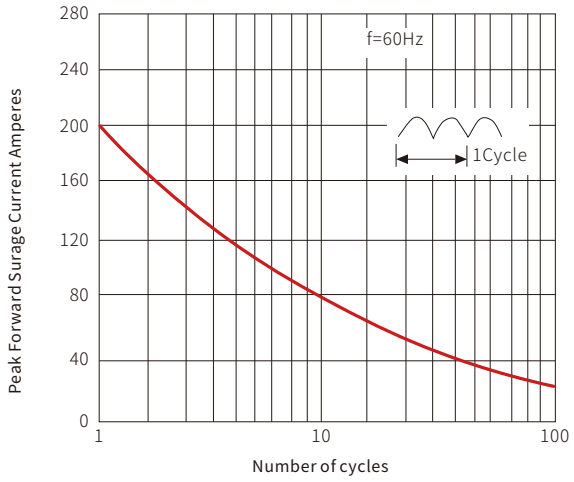


Fig.3 -Typical Forward Voltage Characteristics

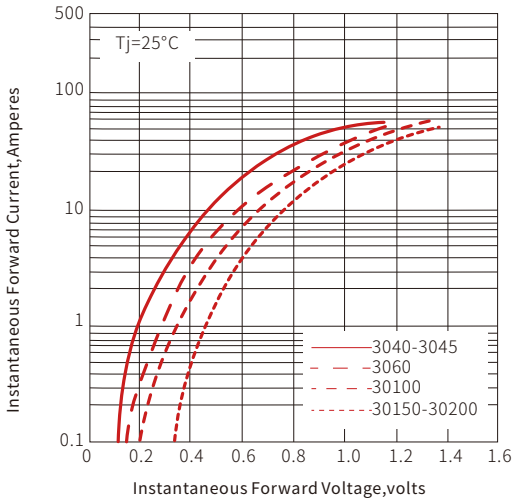
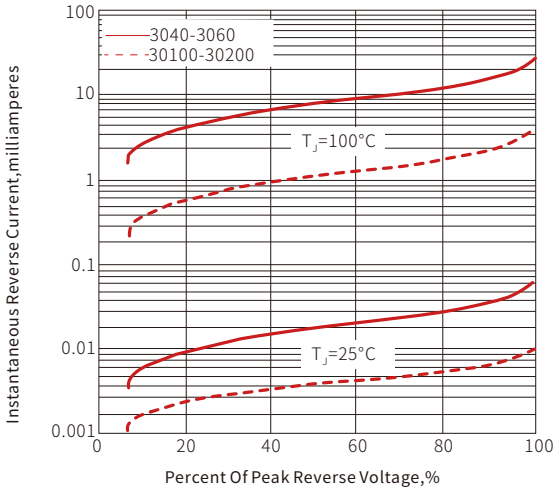
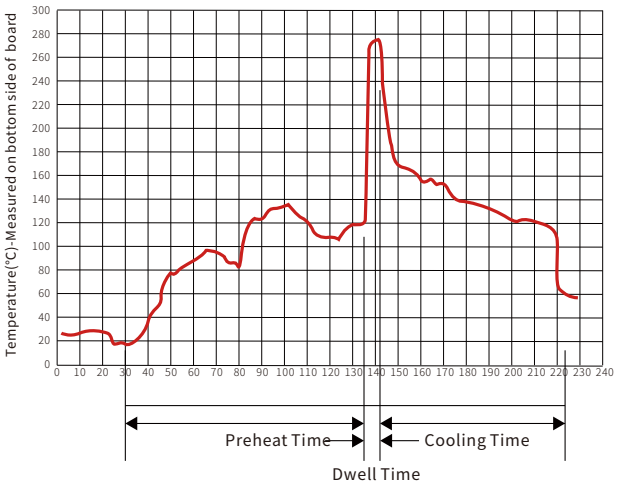


Fig.4 -Typical Reverse Leakage Characteristics

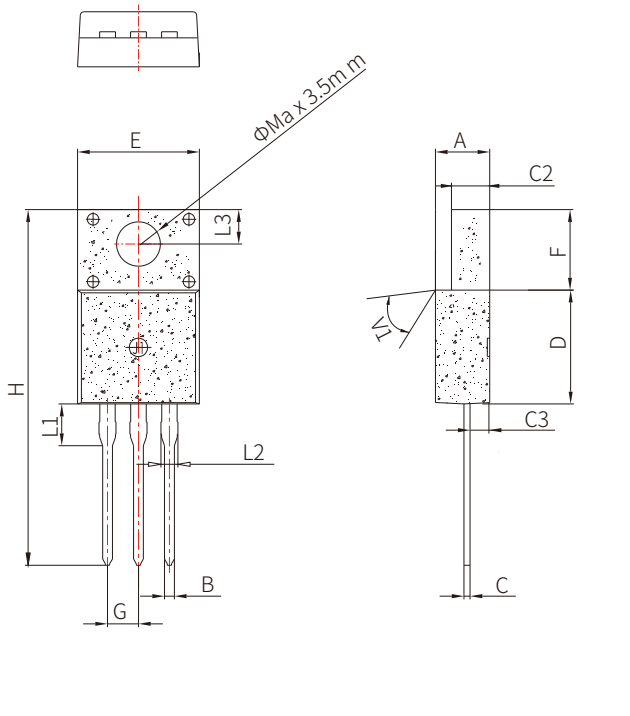


WAVE SOLDERING



Wave Parameter		Lead–free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

TO-220F PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.90	0.173		0.193
B	0.74	0.80	0.83	0.029		0.033
C	0.45		0.75	0.018		0.030
C2	2.40		2.70	0.094		0.106
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.70		10.4	0.382		0.409
F	6.40		7.00	0.252		0.276
G		2.54			0.1	
H	28.0		30.0	1.102		1.181
L1		3.55			0.140	
L2	1.14		1.70	0.045		0.067
L3		3.30			0.130	
V1		45°			45°	

ORDERING INFORMATION

Part Number	Component Package	QTY/Tube	QTY/Box	QTY/Carton
MBR3040FCT-MBR30200FCT	TO-220F	50PCS	1000PCS	5000PCS

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