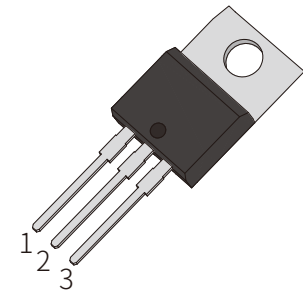


## FEATURES

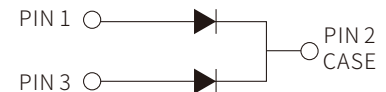
- | Construction Utilizes Void-free Molded Plastic Technique
- | Low Reverse Leakage
- | High Forward Surge Current Capability



TO-220AB

## MECHANICAL DATA

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



Schematic Symbol

## APPROVALS

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

## MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ )

Parameter	Symbol	MBR 2040CT	MBR 2045CT	MBR 2060CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	Unit
Marking		MBR 2040CT	MBR 2045CT	MBR 2060CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	
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 $T_c=110^{\circ}\text{C}$	per device	20.0						A
	per diode	10.0						
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	$I_{FSM}$	150.0						A
Maximum Instantaneous Forward Voltage at 10.0A	$V_F$	0.55	0.70	0.85	0.95			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	0.5			0.05			mA
	$T_A=125^{\circ}\text{C}$	50			10			mA
Typical Thermal Resistance	$R_{\theta JC}$	35.0						$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +150						$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150						$^{\circ}\text{C}$

# CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

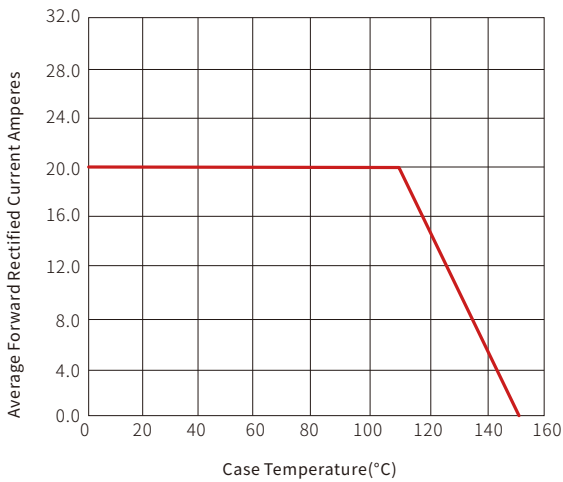


Fig. 2-maximum Non-repetitive Peak Forward Surge Current Perleg

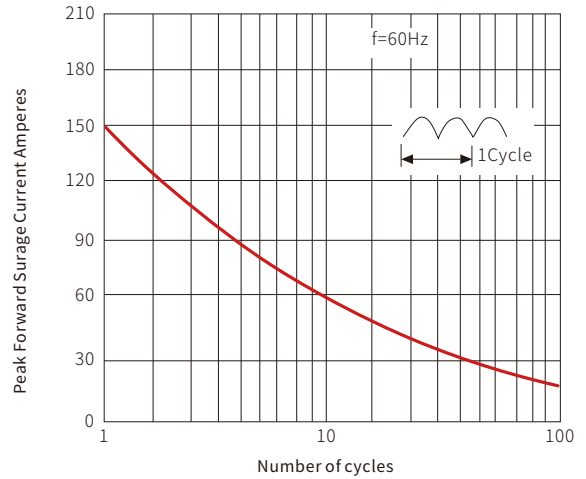


Fig. 3-typical Forward Voltage Characteristics

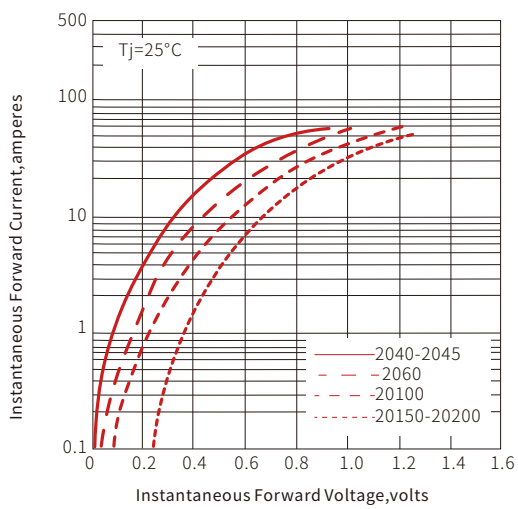
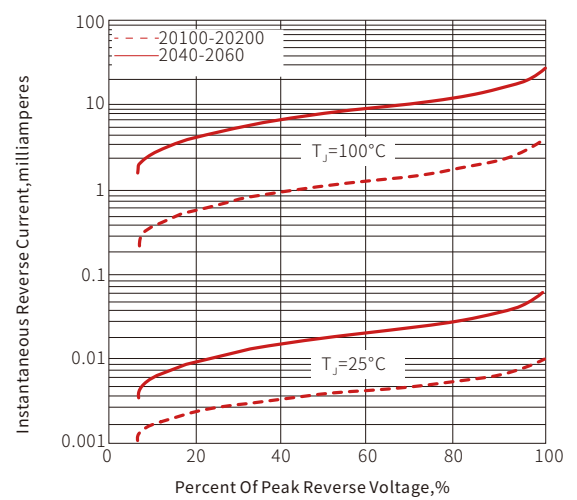
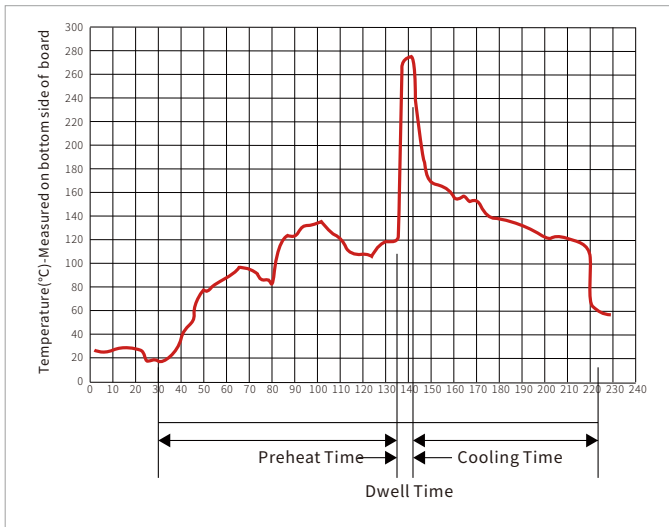


Fig. 4-typical Reverse Leakage Characteristics

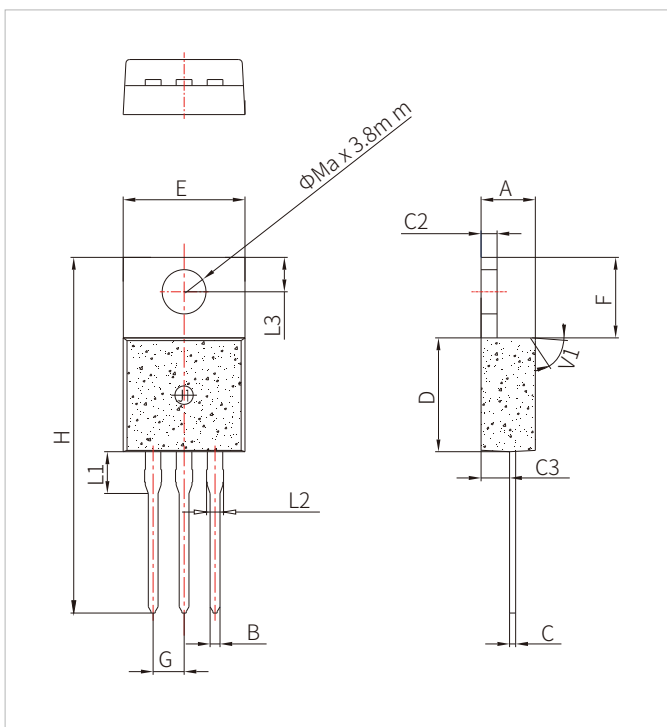


## WAVE SOLDERING



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-220AB PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.61		0.88	0.024		0.035
C	0.46		0.70	0.018		0.028
C2	1.21		1.32	0.048		0.052
C3	2.40		2.72	0.094		0.107
D	8.60		9.70	0.339		0.382
E	9.80		10.4	0.386		0.409
F	6.55		6.95	0.258		0.274
G		2.54			0.1	
H	28.0		29.8	1.102		1.173
L1		3.75			0.148	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
V1		45°			45°	

## ORDERING INFORMATION

Part Number	Component Package	QTY/Tube	QTY/Box	QTY/Carton
MBR2040CT-MBR20200CT	TO-220AB	50PCS	1000PCS	5000PCS

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