

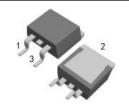
## MBR1060BCT&MBR1060HCT

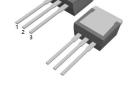
### 10.0AMPS. SCHOTTKY BARRIER RECTIFIERS

#### **FEATURE**

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge capability
- . High temperature soldering guaranteed

260°C /10seconds, 0.25"(6.35mm)from case.





TO-263-2L MBR1060BCT

TO-262-3L MBR1060HCT

### **MECHANICAL DATA**

. Case: Molded with UL-94 Class V-0 recognized

Flame Retardant Epoxy . Mounting position: any

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

## MAXIMUM RATINGS (Tc=25°C unless otherwise noted)

1411111014 INTERIOR (16 25 C diffess otherwise noted)				
Parameter	Symbol	MBR1060BCT&MBR1060HCT	Units	
Maximum Recurrent Peak Reverse Voltage	$V_{ m RRM}$	60	V	
Maximum RMS Voltage	$V_{ m RMS}$	42	V	
Maximum DC blocking Voltage	$V_{ m DC}$	60	V	
Maximum Average Forward Rectified Current Per Leg	7	5.0		
At T <sub>C</sub> =100°C Total device	$I_{\mathrm{F(AV)}}$	10.0	A	
Peak Forward Surge Current 8.3ms single half sine-wave	$I_{ m FSM}$	120.0	A	
superimposed on rated load (JEDEC method) Per Leg				
Typical Junction Capacitance (Note 1)	$C_{ m J}$	284	pF	
Operation Junction Temperature and Storage Temperature	$T_{ m J},T_{ m STG}$	-55 to +150	°C	

#### **ELECTICAL CHARACTERISTICS**-(per leg) (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test condition	ons	Тур	Max	Units
Forward voltage drop $V_{ m F}$		T <sub>J</sub> =25°C	$I_F=3A$	0.54		- V
	TZ.		$I_F=5A$	0.61	0.71	
	V F	T <sub>J</sub> =125°C	$I_F=3A$	0.48		
			$I_F=5A$	0.54	0.64	
Reverse leakage current $I_1$	,	T <sub>J</sub> =25°C	V <sub>R</sub> =60V		100	μA
	$I_{ m R}$	T <sub>J</sub> =125°C	V <sub>R</sub> =60V		20	mA

## **THERMAL CHARACTERISTICS**(T<sub>C</sub>=25°C unless otherwise noted)

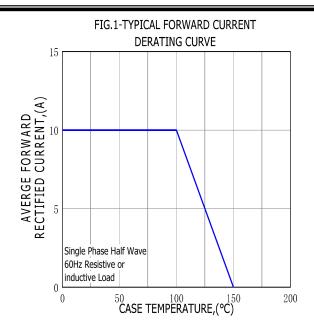
Parameter	Symbol	MBR1060BCT	MBR1060HCT	Units
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	2.0	2.0	°C/W

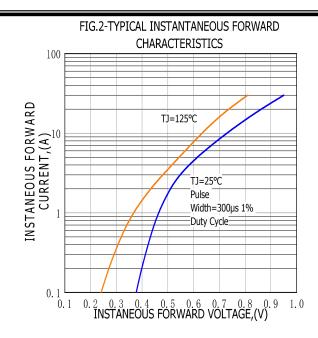
#### **Notes:**

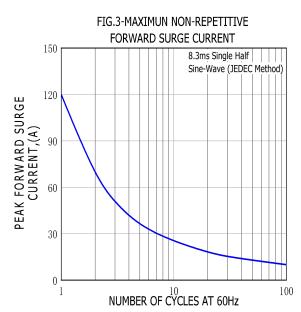
- 1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- 2. Thermal Resistance from Junction to Case

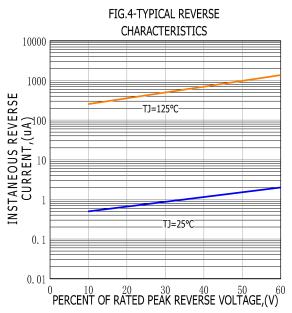


#### RATING AND CHARACTERISTIC CURVE



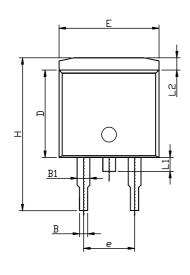


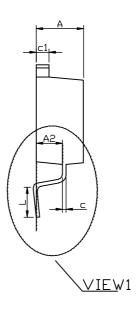


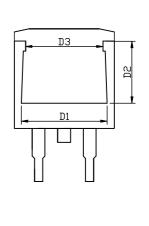


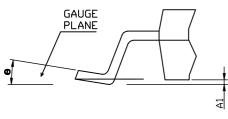


# TO-263-2L PACKAGE OUTLINE

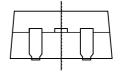




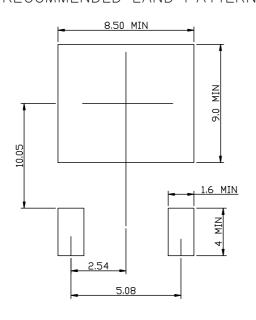








## RECOMMENDED LAND PATTERN

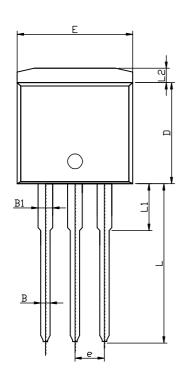


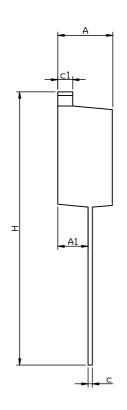
UNIT: mi		1
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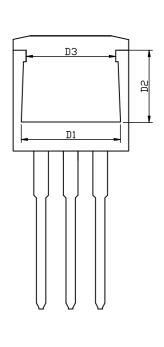
	MIN	NOM	MAX
A	4.50	4.70	4.90
A1	0.05	0.15	0.30
A2	2.45	2.60	2.70
В	0.72	0.82	0.92
B1	1.12	1.27	1.42
С	0.28	0.38	0.48
c1	1.17	1.27	1.37
D	8.46	8.66	8.86
D1	7.90	8. 10	8.40
D2	5. 50	5.70	5.90
D3	7. 10	7.30	7.50
E	9.85	10.15	10.45
е		5. 08BCS	
Н	14.75	15. 15	15.55
L	2.30	2.55	2.80
L1	1.20	1.40	1.60
L2	1.01	1.23	1.50
θ	0°	7°	8°

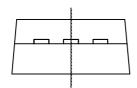


## TO-262-3L PACKAGE OUTLINE

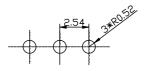








RECOMMENDED LAND PATTERN



UNIT: mm

	MIN	NOM	MAX
A	4.50	4.70	4.90
A1	2.45	2.60	2.70
В	0.72	0.82	0.92
B1	1.12	1.27	1.42
С	0.28	0.38	0.48
c1	1.17	1.27	1.37
D	8.46	8.66	8.86
D1	7.90	8.10	8.40
D2	5. 50	5.70	5.90
D3	7. 10	7.30	7.50
Е	9.85	10. 15	10.45
е		2.54	
Н	23. 20	23.60	24.00
L	13. 10	13.60	14. 10
L1	3.85	4.05	4. 35
L2	1.01	1.23	1.50