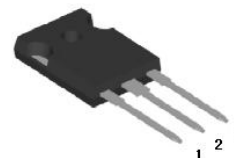


## MBR60100YCT

### 60.0AMPS. SCHOTTKY BARRIER RECTIFIERS

#### FEATURE

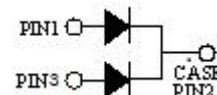
- .High current capability
- .Low forward voltage drop
- .Low power loss, high efficiency
- .High surge capability
- .High temperature soldering guaranteed  
260°C /10seconds, 0.25"(6.35mm)from case.



TO-247-3L  
MBR60100YCT

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

Parameter	Symbol	MBR60100YCT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS Voltage	$V_{RMS}$	70	V
Maximum DC blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current <i>Per Leg</i> at T <sub>C</sub> =100°C <i>Total device</i>	$I_{F(AV)}$	30.0 60.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) <i>Per Leg</i>	$I_{FSM}$	300.0	A
Typical Junction Capacitance (Note 1)	$C_J$	830	pF
Operation Junction Temperature and Storage Temperature	$T_J, T_{STG}$	-55 to +150	°C

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

Parameter	Symbol	Test conditions	Typ	Max	Units	
Forward voltage drop	$V_F$	T <sub>J</sub> =25°C	I <sub>F</sub> =5A	0.58	---	V
			I <sub>F</sub> =10A	0.65	---	
			I <sub>F</sub> =30A	0.78	0.90	
		T <sub>J</sub> =125°C	I <sub>F</sub> =5A	0.48	---	
			I <sub>F</sub> =10A	0.55	---	
			I <sub>F</sub> =30A	0.67	0.80	
Reverse leakage current	$I_R$	T <sub>J</sub> =25°C	V <sub>R</sub> =100V	---	50	μA
		T <sub>J</sub> =125°C	V <sub>R</sub> =100V	---	10	mA

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

Parameter	Symbol	MBR60100YCT	Units
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	0.5	°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 CURVES

FIG1-TYPICAL FORWARD CURRENT DERATING CURVE

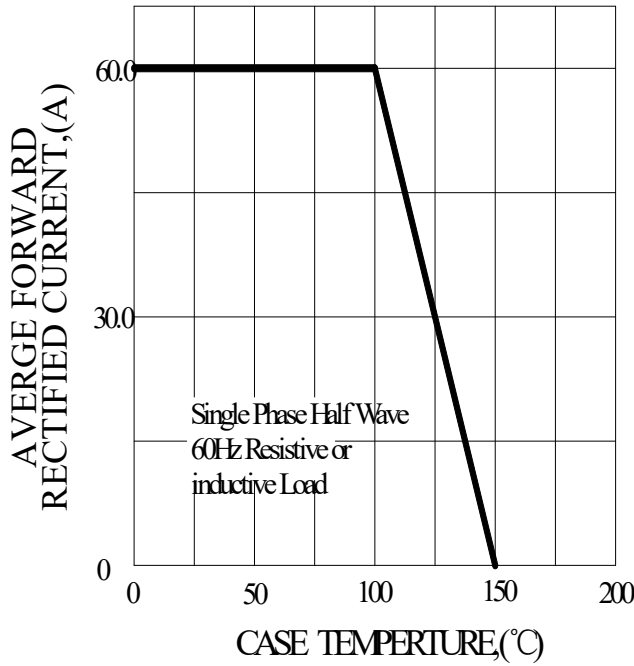


FIG2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

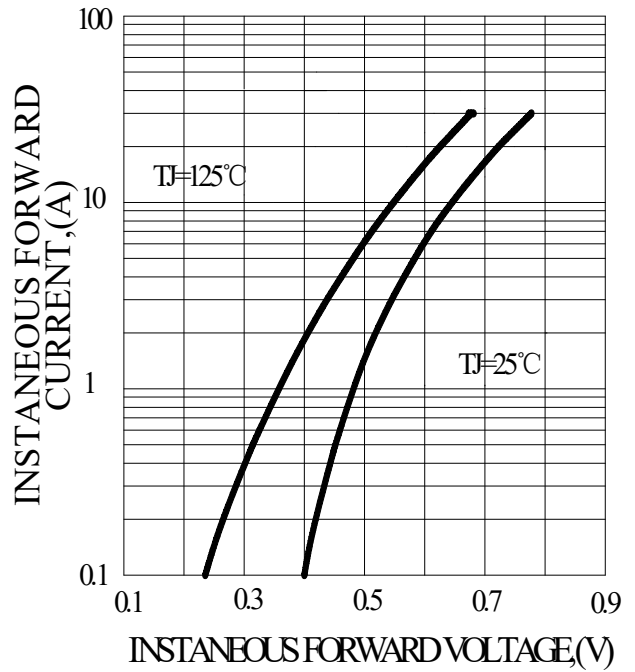


FIG3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

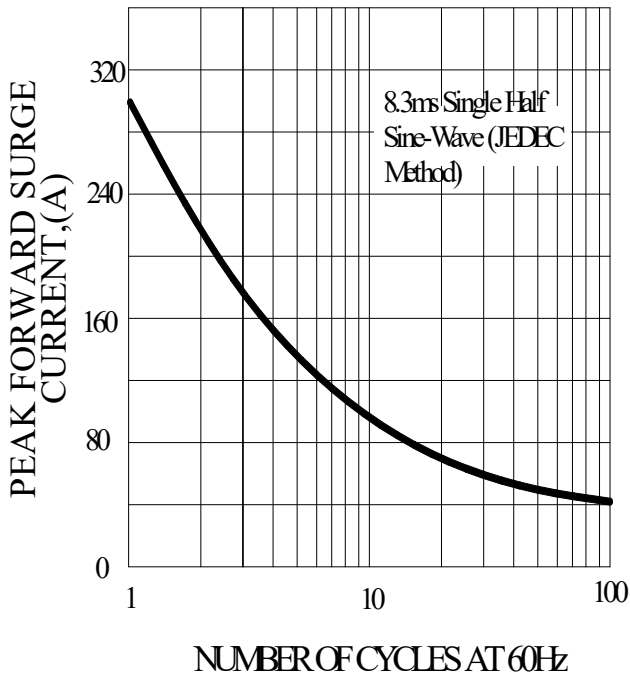
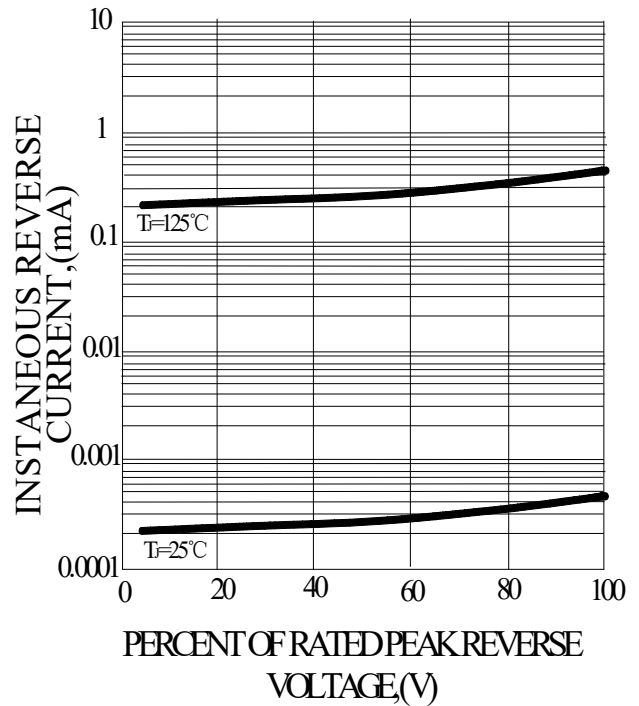
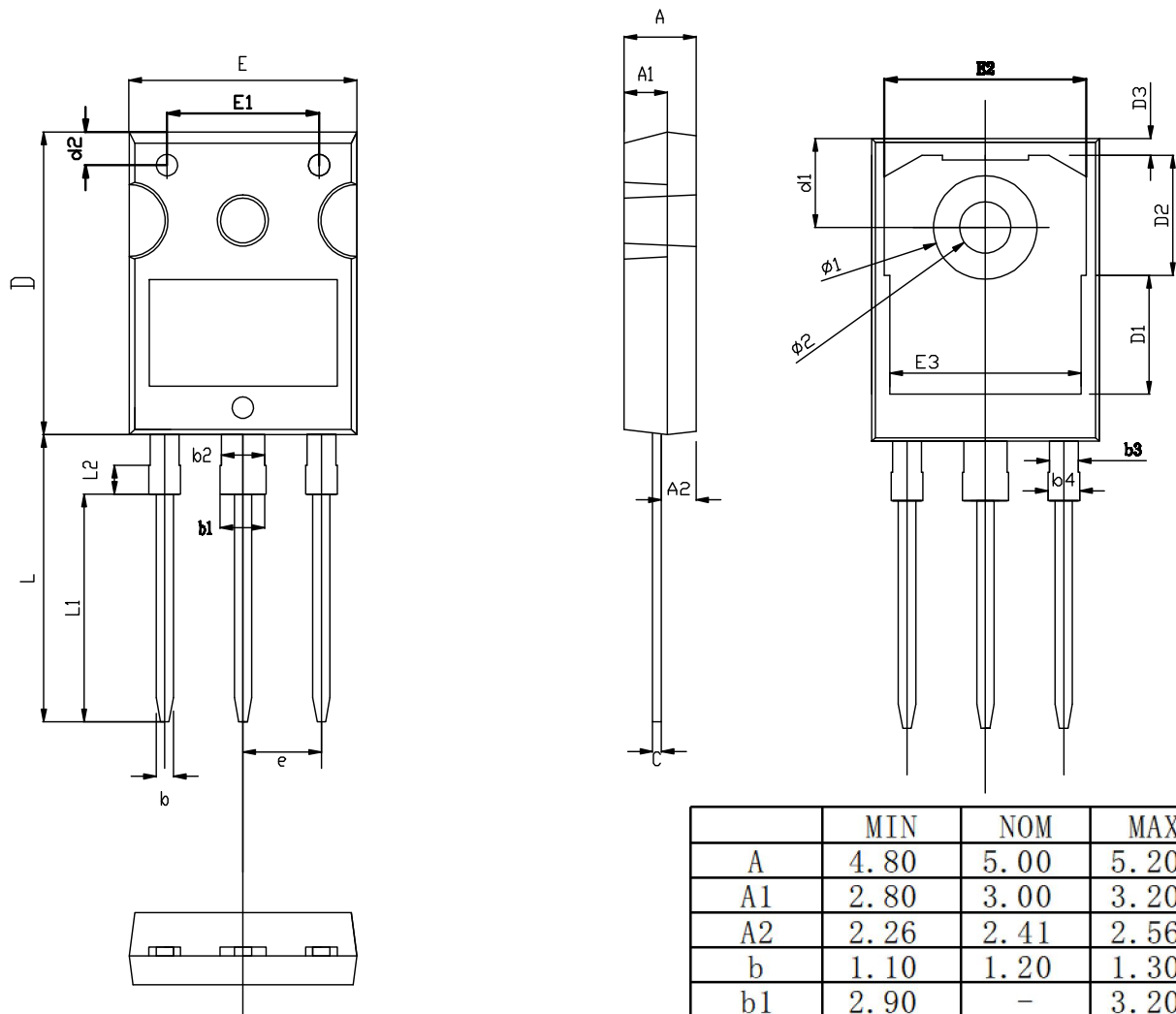


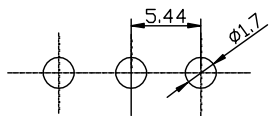
FIG4-TYPICAL REVERSE CHARACTERISTICS



# TO-247-3L PACKAGE OUTLINE



RECOMMENDED LAND PATTERN



UNIT: mm

	MIN	NOM	MAX
A	4.80	5.00	5.20
A1	2.80	3.00	3.20
A2	2.26	2.41	2.56
b	1.10	1.20	1.30
b1	2.90	-	3.20
b2	2.90	3.00	3.10
b3	1.90	2.00	2.10
b4	2.00	-	2.20
c	0.50	0.60	0.70
D	20.80	21.00	21.20
D1		8.23	
D2		8.32	
D3		1.17	
d1	6.00	6.15	6.30
d2	2.20	2.30	2.40
E	15.60	15.80	16.00
E1		10.50	
E2		14.02	
E3		13.50	
e	5.34	5.44	5.54
L	19.72	19.92	20.12
L1		15.79	
L2		1.98	
ø1	7.10	7.19	7.30
ø2	3.50	3.60	3.70