

Schottky Barrier Rectifier Diode

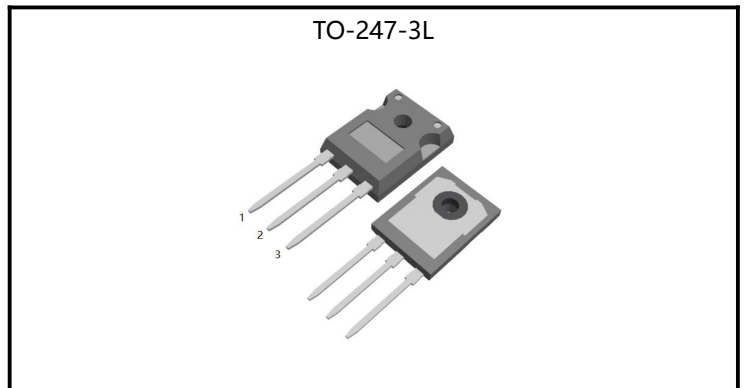
100A,200V

FEATURE

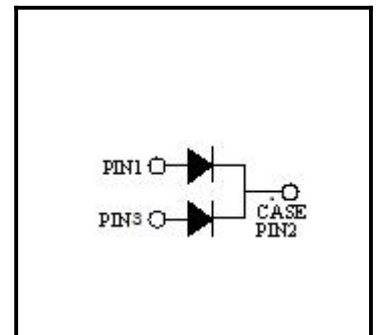
- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Low power loss, high efficiency
- ◆ High surge capability
- ◆ High temperature soldering guaranteed
260°C /10seconds, 0.25"(6.35mm)from case

MECHANICAL DATA

- ◆ Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
- ◆ Mounting position: any



Parameter	Values	Unit
$I_{F(AV)}$	100	A
V_{RRM}	200	V
T_J	150	°C
$V_F(max)$	0.92	V
I_{FSM}	500	A



Ordering Code	Marking	Package	Packaging
MBR100200YCT	MBR100200YCT	TO-247-3L	Tube



Absolute Maximum Ratings($T_C=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Values			Unit	Note/Test Conditions
		Min	Typ	Max		
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	-	-	200	V	-
Maximum RMS Voltage	V_{RMS}	-	-	140	V	-
Maximum DC blocking Voltage	V_{DC}	-	-	200	V	-
Maximum Average Forward Rectified Current	$I_{F(AV)}$	-	-	50 100	A	Per Leg Total device, $T_C=100^{\circ}\text{C}$
Non-Repetitive Forward Surge Current	Per Leg I_{FSM}	-	-	500	A	$T_C=25^{\circ}\text{C}$, $t_p=8.3\text{ms}$, Half Sine Wave
Typical Junction Capacitance	C_J	-	888	-	pF	Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55	-	150	$^{\circ}\text{C}$	-

Thermal Characteristics

Parameter	Symbol	Values			Unit	Note/Test Conditions
		Min	Typ	Max		
Thermal resistance , Channel to Case	$R_{th(ch-c)}$	-	-	1.0	$^{\circ}\text{C}/\text{W}$	-

Electrical Characteristics-(per leg)($T_C=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Values			Unit	Note/Test Conditions
		Min	Typ	Max		
Reverse Breakdown Voltage	V_{RRM}	200	-	-	V	$I_R=100\mu\text{A}$
Forward Voltage Drop	V_F	-	0.54	-	V	$I_F=2\text{A}, T_J=25^{\circ}\text{C}$
		-	0.42	-		$I_F=2\text{A}, T_J=125^{\circ}\text{C}$
Forward Voltage Drop	V_F	-	0.62	-	V	$I_F=5\text{A}, T_J=25^{\circ}\text{C}$
		-	0.50	-		$I_F=5\text{A}, T_J=125^{\circ}\text{C}$
Forward Voltage Drop	V_F	-	0.82	0.92	V	$I_F=50\text{A}, T_J=25^{\circ}\text{C}$
		-	0.71	0.81		$I_F=50\text{A}, T_J=125^{\circ}\text{C}$
Reverse Leakage Current	I_R	-	0.8	10	μA	$V_R=200\text{V}, T_J=25^{\circ}\text{C}$
		-	740	10000		$V_R=200\text{V}, T_J=125^{\circ}\text{C}$



RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

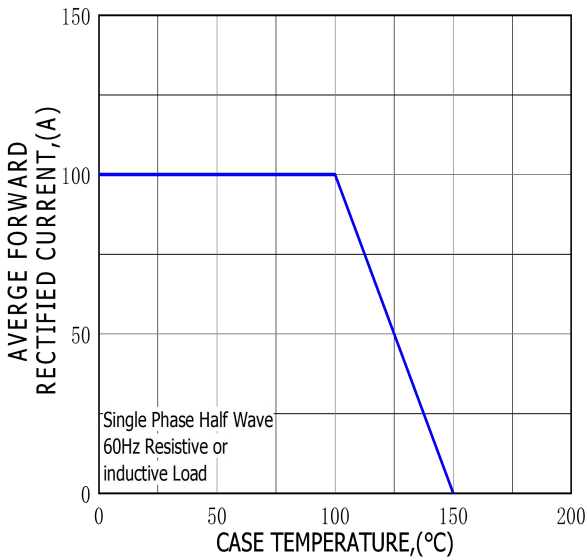


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

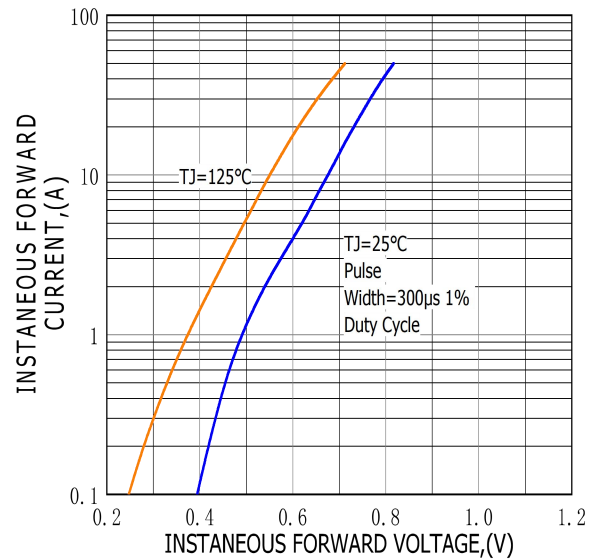


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

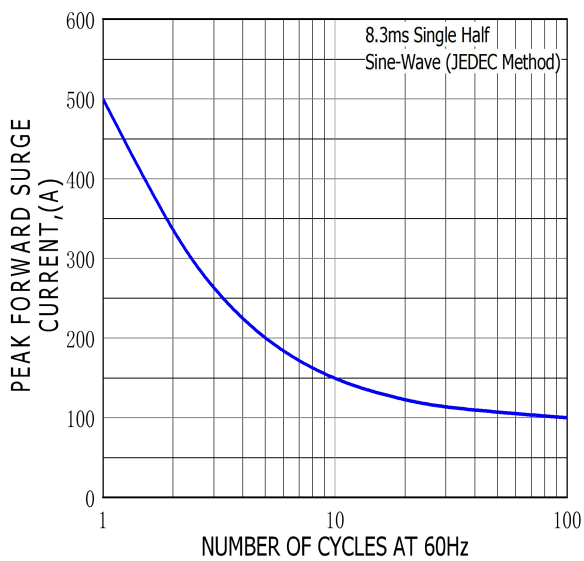
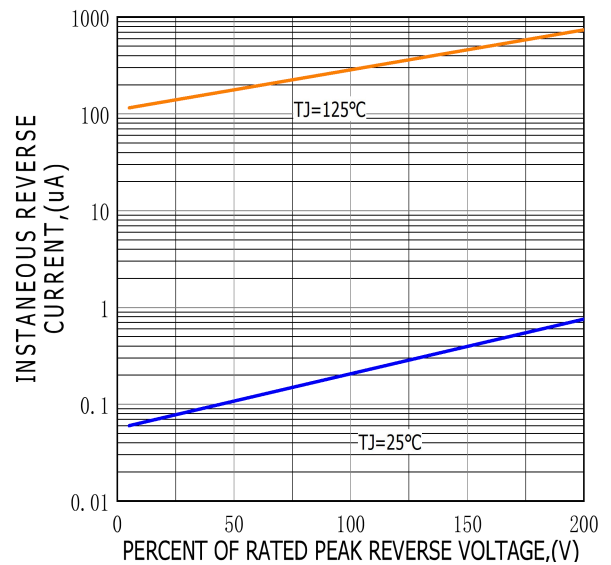
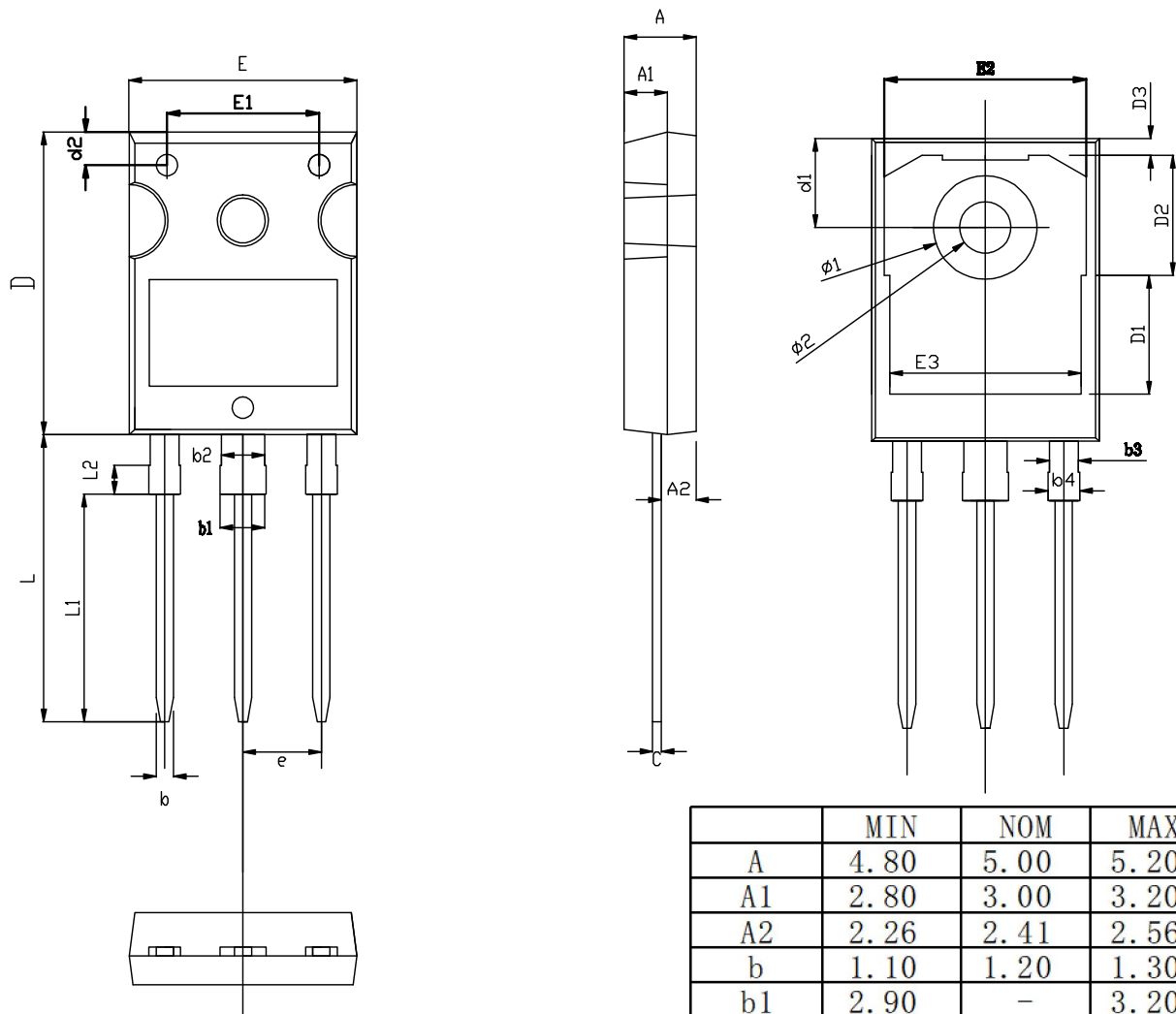


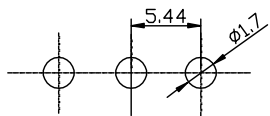
FIG.4-TYPICAL REVERSE CHARACTERISTICS



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