



SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 40 to 200 V

Forward Current - 40 A

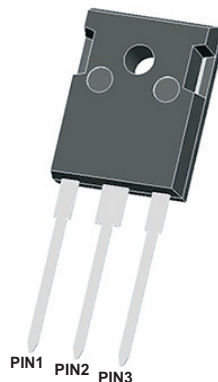
FEATURES

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

Mechanical data

- Case: TO-247-3L
- Approx. Weight: 6.3g (0.22oz)
- Terminals: Lead solderable per MIL-STD-202, Method 208

TO-247-3L



SYMBOL

ROHS
COMPLIANT



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

CHARACTERISTICS		MBR4040WT	MBR4045WT	MBR4060WT	MBR40100WT	MBR40150WT	MBR40200WT	Units
Maximum Recurrent 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	$I_{F(AV)}$	20 40						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) per diode	I_{FSM}	300						A
Max Instantaneous Forward Voltage at 20 A DC Per leg	V_F	0.75	0.80	0.88	0.92	0.95		V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I_R	0.1 20			0.05 20			mA
Typical Junction Capacitance ⁽¹⁾	C_j	200(typ)						pF
Typical Thermal Resistance	$R_{\theta JC}$ $R_{\theta JA}$	2 45						°C/W
Operating Junction Temperature Range	T_j	-55 ~ +150				-55 ~ +175		°C
Storage Temperature Range	T_{stg}	-55 ~ +150				-55 ~ +175		°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C



Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

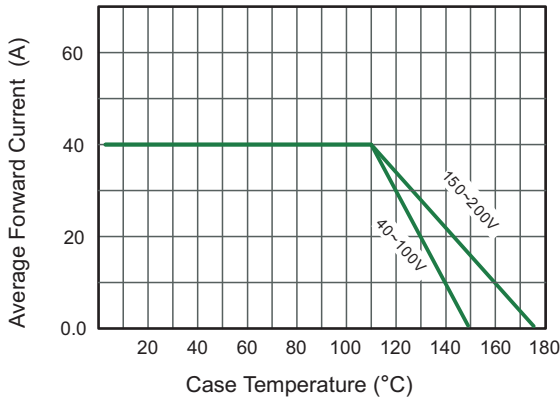


Fig.2 Typical Reverse Characteristics

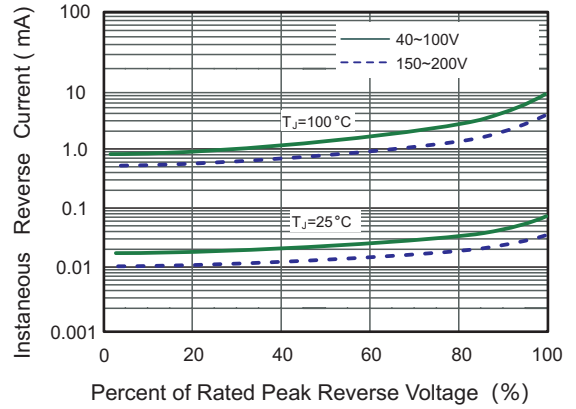


Fig.3 Typical Forward Characteristic(per leg)

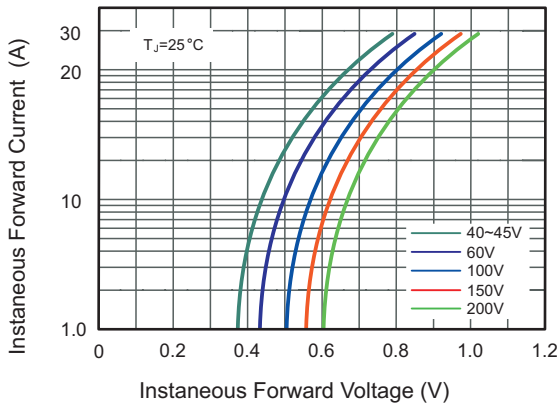


Fig.4 Typical Junction Capacitance

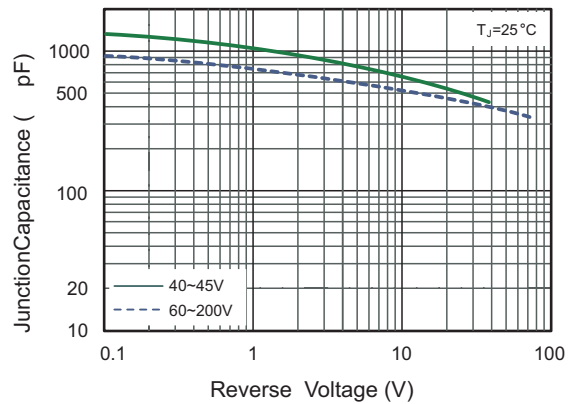


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

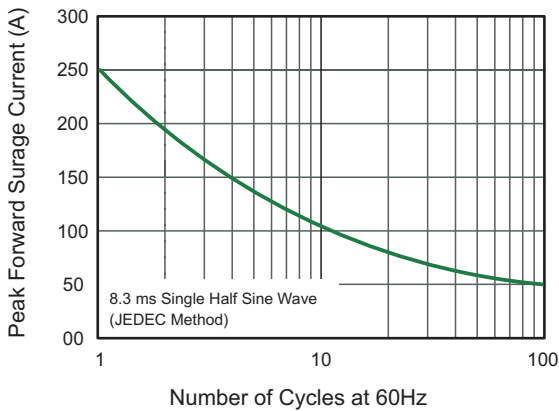
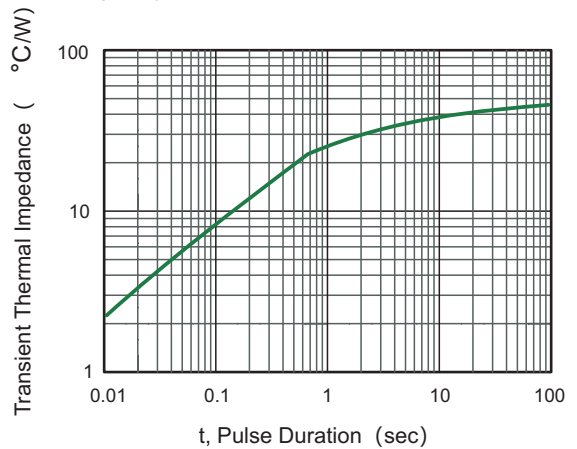


Fig.6- Typical Transient Thermal Impedance

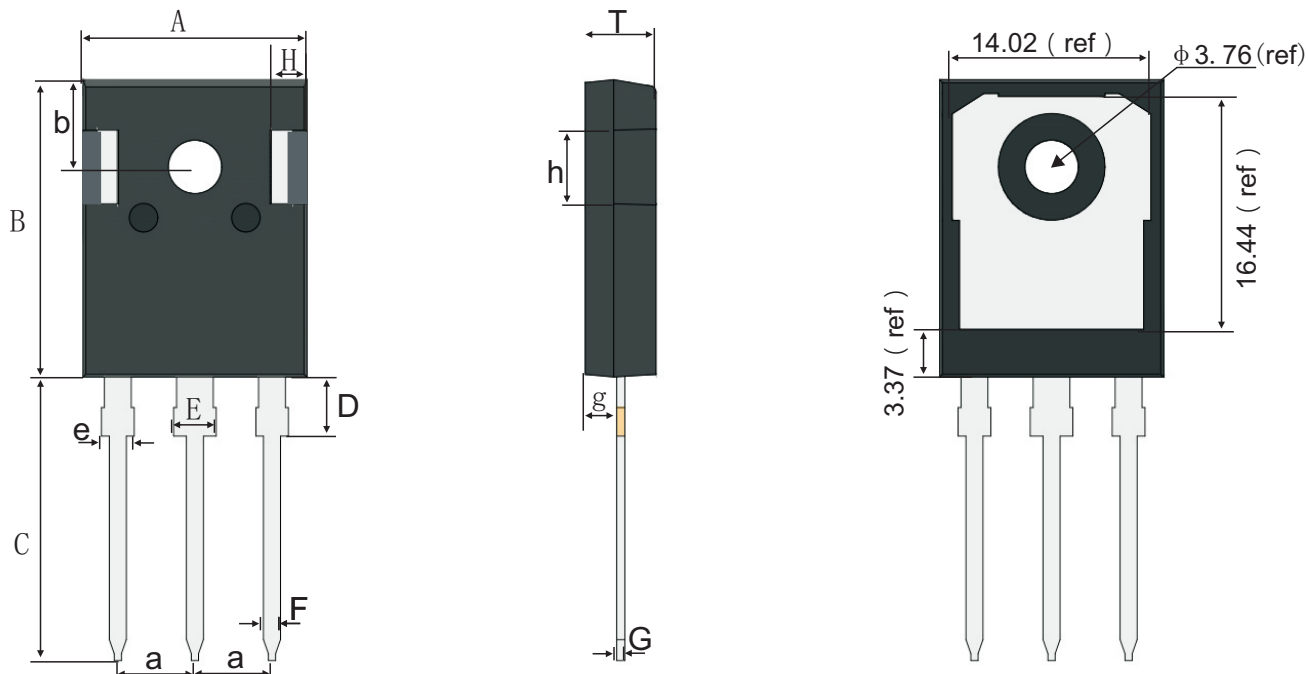




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

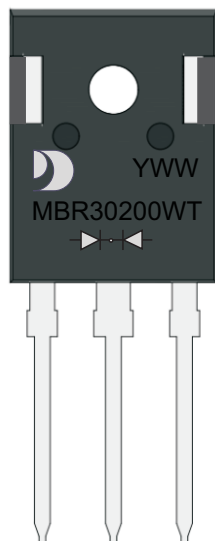
TO-247-3L



TO-247-3L mechanical data

UNIT		A	B	b	C	D	E	e	F	g	G	T	t	a	H	h
mm	max	16.01	21.18	6.26	20.2	4.25	3.15	2.20	1.30	2.49	0.70	5.20	2.21	5.54	2.71	5.37
	typ	15.81	20.98	6.16	20.0	4.15	3.00	2.05	1.20	2.39	0.60	5.00	2.01	5.44	2.51	5.17
	min	15.61	20.78	6.06	19.8	4.05	2.85	1.90	1.10	2.29	0.50	4.80	1.81	5.34	2.31	4.97
mil	max	630	834	246	795	167	124	87	51	98	28	205	87	218	107	211
	typ	622	826	243	787	163	118	81	47	94	24	197	79	214	99	204
	min	615	818	239	780	159	112	75	43	90	20	189	71	210	91	196

MARKING DIAGRAM



YWW: Date Code
Y:Years(0~9)
WW:Week
MBR30200WT: Product name
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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