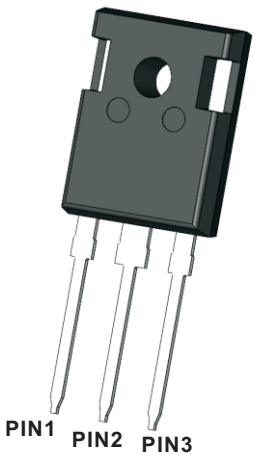
SCHOTTKY BARRIER RECTIFIERS

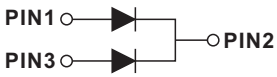
Reverse Voltage - 40 to 200 V

Forward Current - 40 A

TO-247-3L



RoHS COMPLIANT



Features

- High current capability
- High surge capability
- Super Low Forward Voltage Drop
- Reliable High Temperature Operation
- Softest, fast switching capability

Mechanical data

- Case: TO-247-3L
- Approx. Weight: 6.3g (0.22oz)
- RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0,“Halogen-free”.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ 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 — Per diode Per device	$I_{F(AV)}$	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 — T_a = 25°C T_a =125°C	I_R	0.1 20			0.05 20			mA
Typical Junction Capacitance (1)	C_j	200						pF
Typical Thermal Resistance	$R_{\theta JC}$ $R_{\theta Ja}$	0.8 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

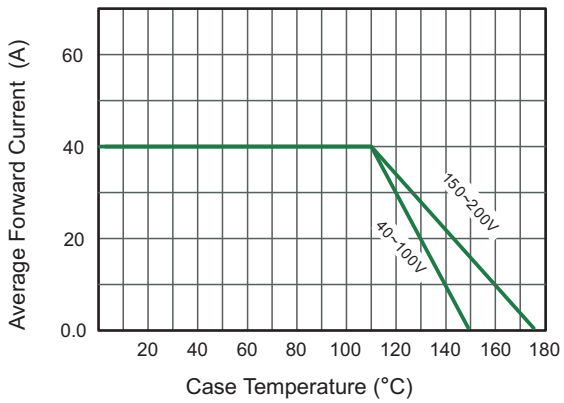


Fig.2 Typical Reverse Characteristics

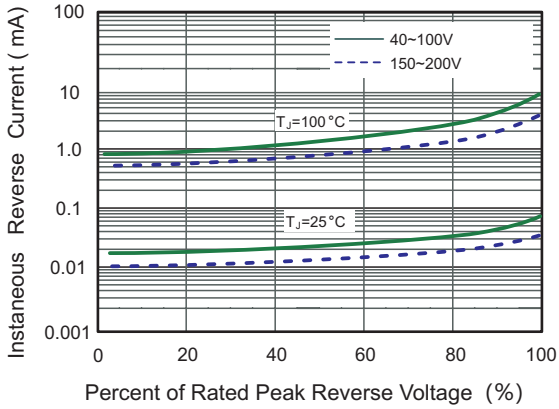


Fig.3 Typical Forward Characteristic(per leg)

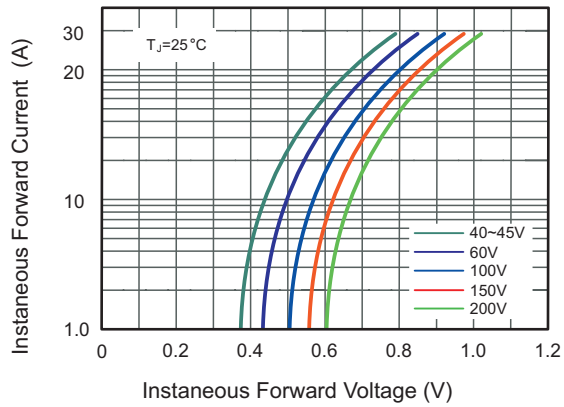


Fig.4 Typical Junction Capacitance

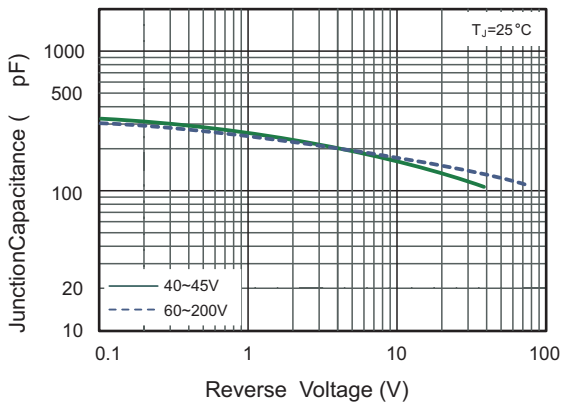
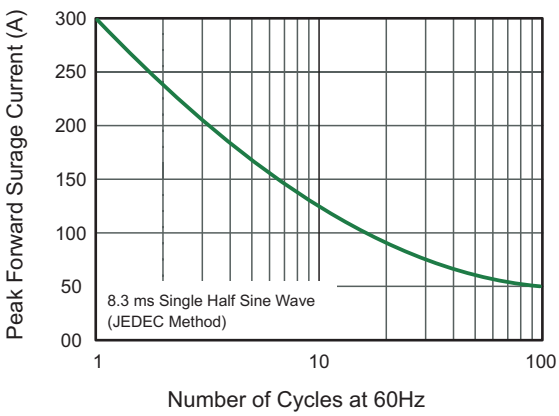
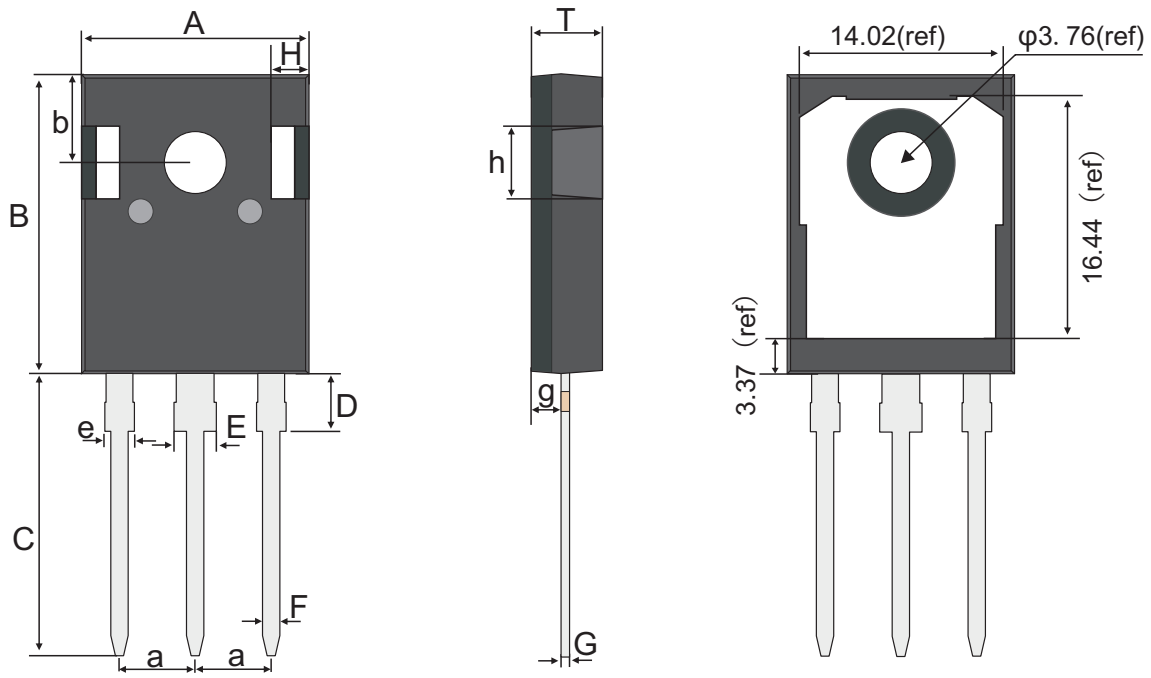


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline
Through Hole Package ; 3 leads

TO-247-3L



TO-247-3L mechanical data

UNIT		A	a	B	b	C	D	E	e	F	G	g	H	h	T
mm	max	16.01	5.54	21.18	6.26	20.2	4.25	3.25	2.2	1.3	0.7	2.49	2.71	5.37	5.2
	typ	15.81	5.44	20.98	6.16	20.0	4.15	3.10	2.05	1.2	0.6	2.39	2.51	5.17	5.0
	min	15.61	5.34	20.78	6.06	19.8	4.05	2.95	1.9	1.1	0.5	2.29	2.31	4.97	4.8
mil	max	630	218	834	246	795	167	128	87	51	28	98	107	211	205
	typ	622	214	826	243	787	163	122	81	47	24	94	99	204	197
	min	615	210	818	239	780	159	116	75	43	20	90	91	196	189

Marking

Type number	Marking code
MBR40xxWT MBR40xxxWT	MBR40xxWT MBR40xxxWT

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