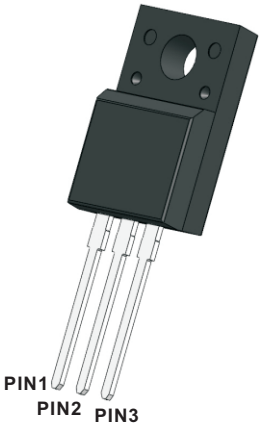
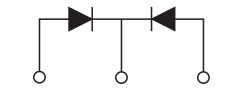
Schottky Barrier Rectifiers
Reverse Voltage - 40 to 200 V
Forward Current - 30 A

TO-220F-3L



RoHS COMPLIANT



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-220F-3L
- Approx Weight: 1.767g (0.062oz)
- Lead free finish, RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0,“Halogen-free”.

Packing Marking And Ordering Information

Device Package	Device	Marking	Packing Type	QTY Per Tube	Inner box	Per Carton
TO-220F-3L	MBR30xxxFT	MBR30xxxFT	Tube	50 Pcs	2,500 Pcs	5,000 Pcs

Maximum Ratings And Electrical Characteristics

Ratings At 25℃ Ambient Temperature Unless Otherwise Specified

Characteristics	Symbols	MBR3040FT	MBR3045FT	MBR3060FT	MBR30100FT	MBR30150FT	MBR30200FT	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	60	100	150	200	V
Maximum Average Forward Rectified Current per leg / per device	$I_{F(AV)}$	15 30						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) per leg	I_{FSM}	200						A
I^2t Rating for Fusing t≤8. 3ms	I^2t	166						A^2S
Max Instantaneous Forward Voltage at 15 A(per leg)	V_F	0.75		0.80	0.88	0.92	0.95	V
Maximum DC Reverse Current T_a = 25°C / at Rated DC Reverse Voltage T_a =100°C	I_R	0.1 20			0.05 20			mA
Typical Thermal Resistance (P.C.B. mounted with 3.81x3.81cm copper pad areas.)	$R_{\theta JA}$ $R_{\theta JC}$	45 7.5						°C/W
Typical Junction Capacitance at V_R=4V, f=1MHz	C_j	500		400	300	200	150	pF
Operating Junction Temperature Range	T_j	-55 ~ +150				-55 ~ +175		°C
Storage Temperature Range	T_{stg}	-55 ~ +150				-55 ~ +175		°C

Fig.1 Typical Forward Current Derating Curve

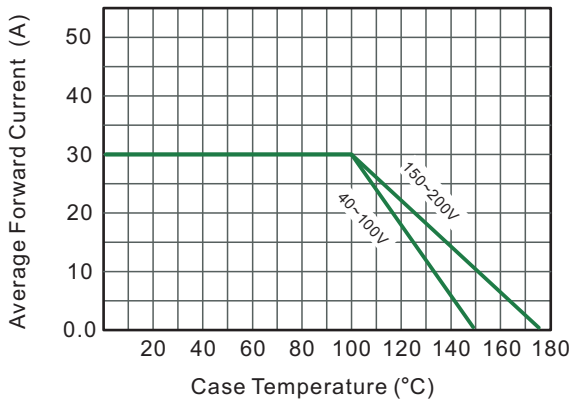


Fig.2 Typical Reverse Characteristics

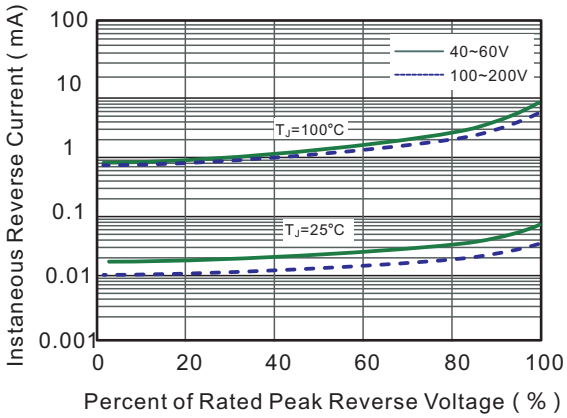


Fig.3 Typical Forward Characteristic(per leg)

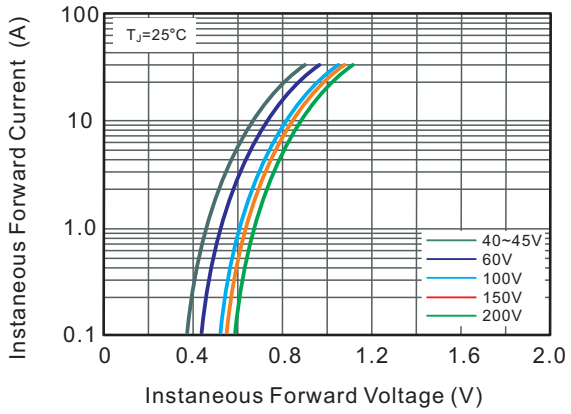


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

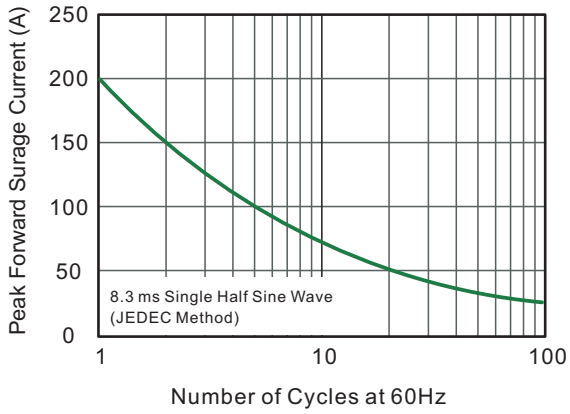


Fig.5 Typical Junction Capacitance

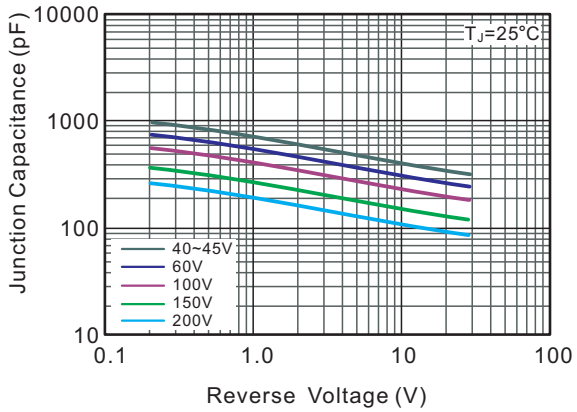
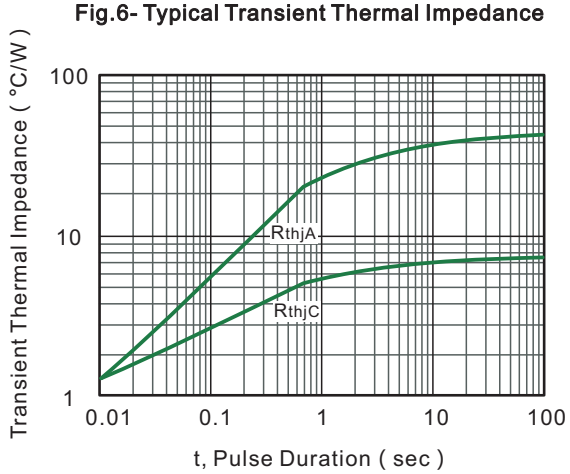
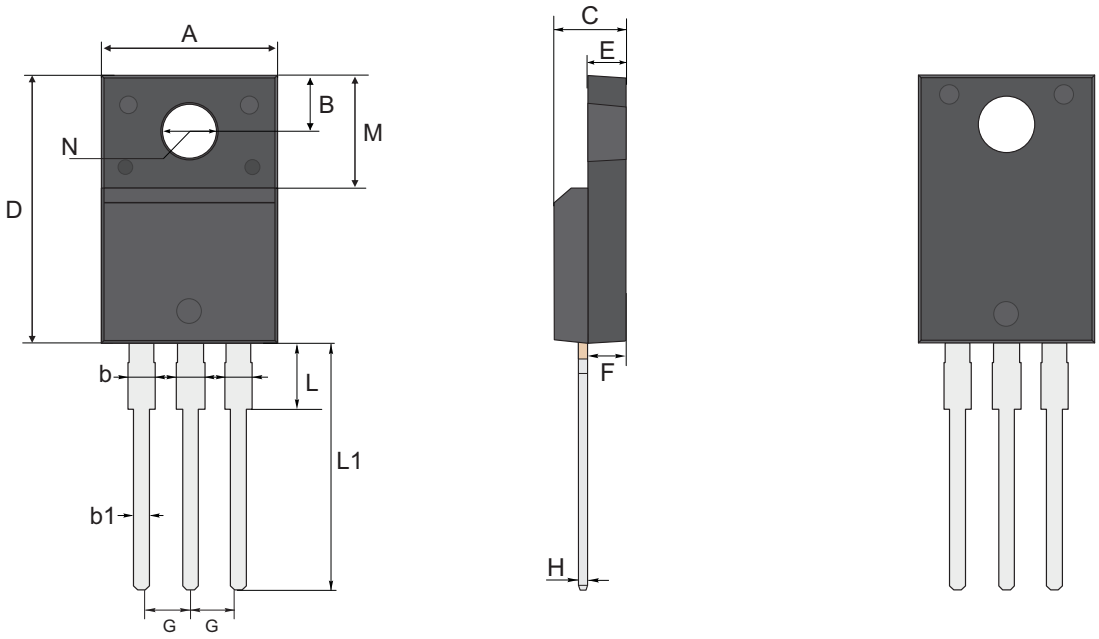


Fig.6- Typical Transient Thermal Impedance



Package Outline
Through Hole Package ; 3 leads

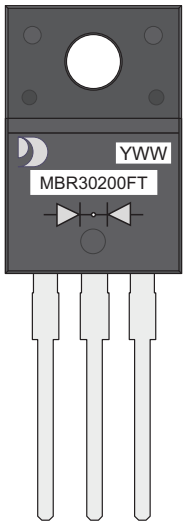
TO-220F-3L



TO-220F-3L Mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N
mm	max	10.28	3.37	1.44	0.9	4.9	16.07	2.74	2.74	2.64	0.6	2.85	13.7	6.98	3.18 typ.
	typ	10.18	3.27	1.34	0.8	4.7	15.87	2.54	2.54	2.54	0.5	2.65	13.5	6.68	
	min	10.08	3.17	1.24	0.7	4.5	15.67	2.34	2.34	2.44	0.4	2.45	13.3	6.38	
mil	max	405	133	57	35	193	633	108	108	104	24	112	539	275	125 typ.
	typ	401	129	53	31	185	625	100	100	100	20	104	531	263	
	min	397	125	49	28	177	617	92	92	96	16	96	524	251	

Marking Diagram



YWW: Date Code
Y:Years(0~9)
WW:Week
MBR30200FT: Product name
(NOTE:The weekly code is based on the actual number of weeks in the calendar year.)

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