

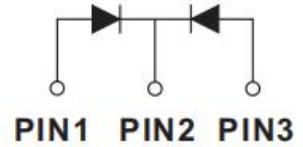
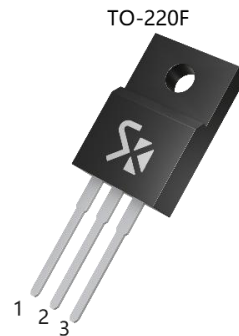


MBR3040AT THRU MBR30200AT

Schottky Rectifier Diode

Features

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



Maximum Ratings And Electrical Characteristics ($T_A=25^{\circ}\text{C}$, Unless otherwise specified)

Parameter		Symbol	MBR30 40AT	MBR30 45AT	MBR30 60AT	MBR30 100AT	MBR30 150AT	MBR30 200AT	Units
Maximum Repetitive 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	I _{F(AV)}	15						A
	per device		30						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimpose on Rated Load (JEDEC Method) per leg		I _{FSM}	200						A
I ₂ t Rating For Fusing	t≤8.3ms	I ² t	166						A ² s
Maximum Instantaneous Forward Voltage at 15A(per leg)		V _F	0.75		0.80	0.88	0.92	0.95	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25°C	I _R	0.1			0.05			mA
	T _A = 100°C		20			20			mA
Typical Thermal Resistance(P.C.B mounted with 3.81x3.81cm copper pad areas)		R _{θJA}	45						°C/W
		R _{θJC}	3.5						°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



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Typical Characteristics

Fig.1 Typical Forward Current Derating Curve

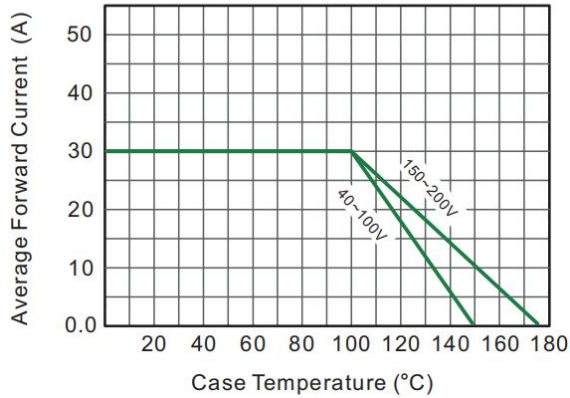


Fig.2 Typical Reverse Characteristics

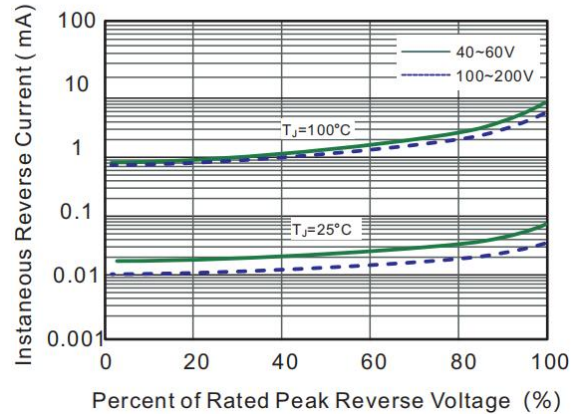


Fig.3 Typical Forward Characteristic(per leg)

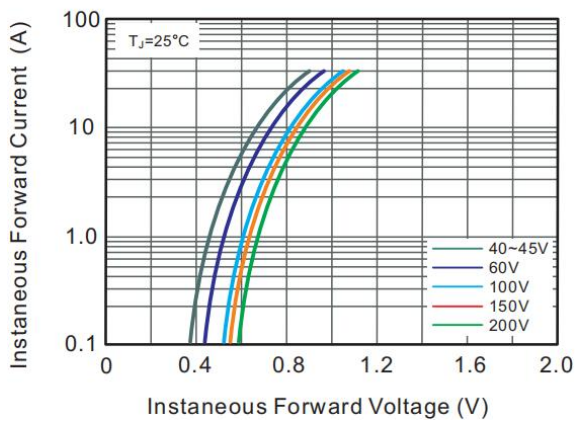


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

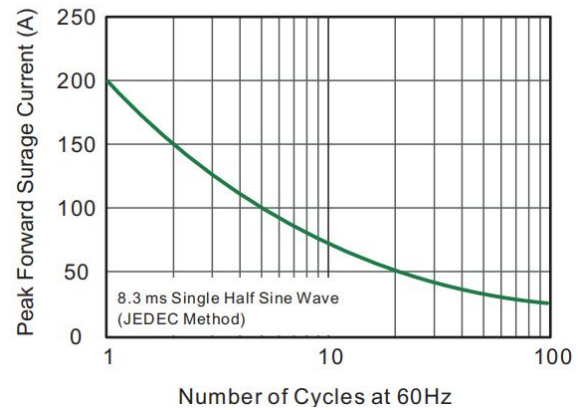
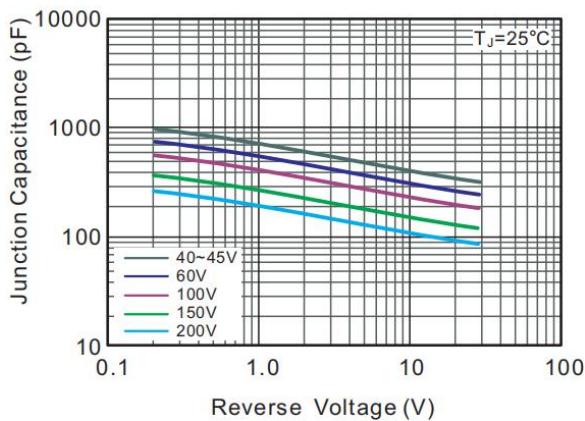


Fig.5 Typical Junction Capacitance



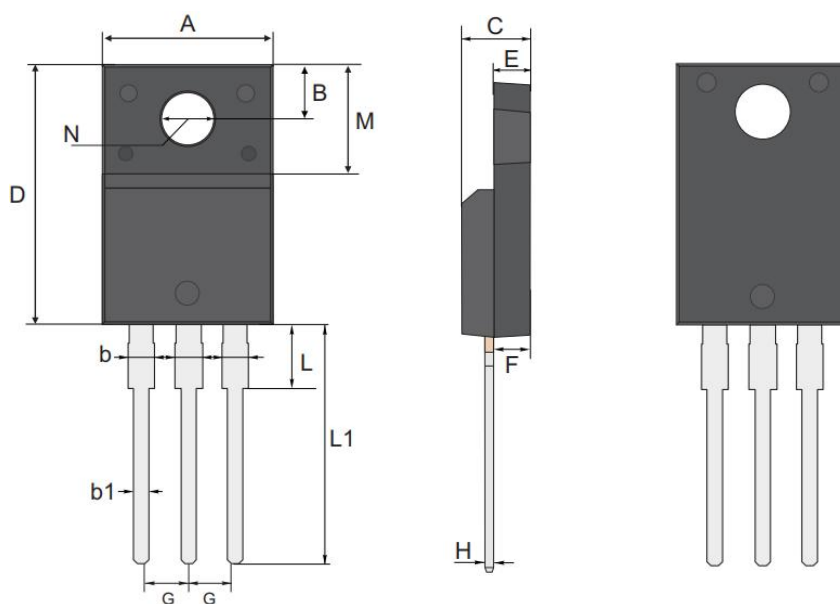


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Package Information

TO-220F

Dimensions in mm



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	