



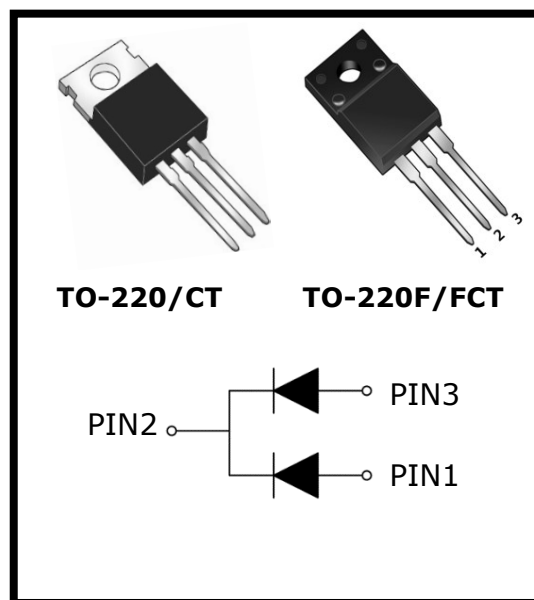
40V TO 200V 20A Low VF Schottky

Features

- Low Forward Voltage (V_F) Drop
- Very Low Reverse Leakage in high temperature.
- Softest, fast switching capability
- 150°C Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

Mechanical data

- Case: TO-220-3L and TO-220F-3L
- Lead free finish, RoHS compliant
- Case Material: "Green" molding compound, UL flammability classification 94V-0,"Halogen-free".



Application

- DCDC Converter for LED lighting
- Battery charger
- SMPS

Maximum Ratings Characteristics

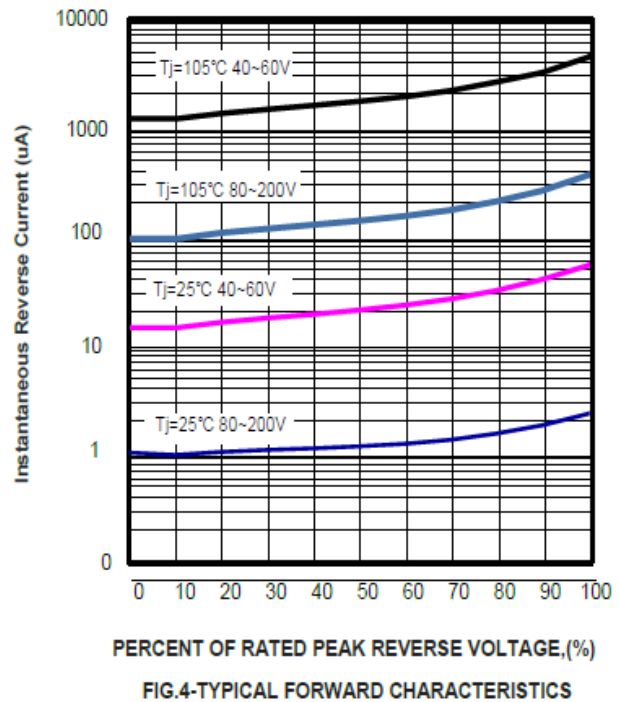
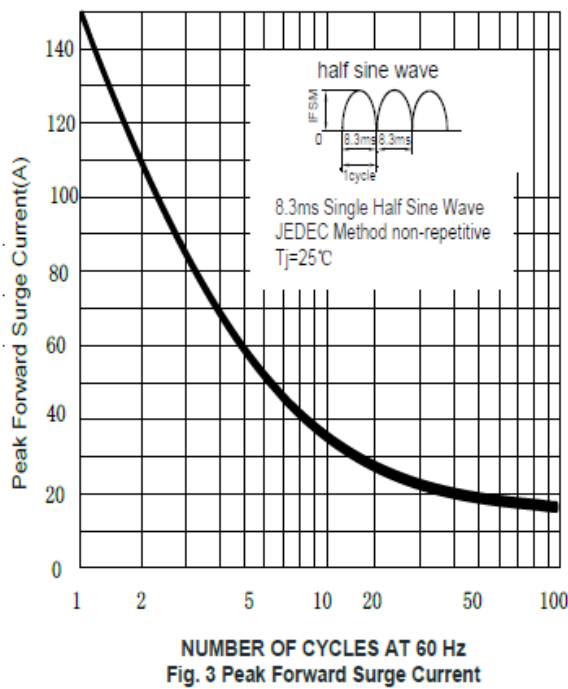
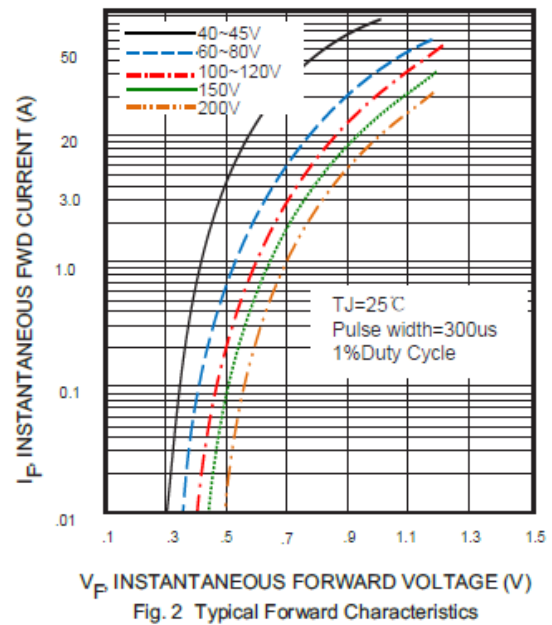
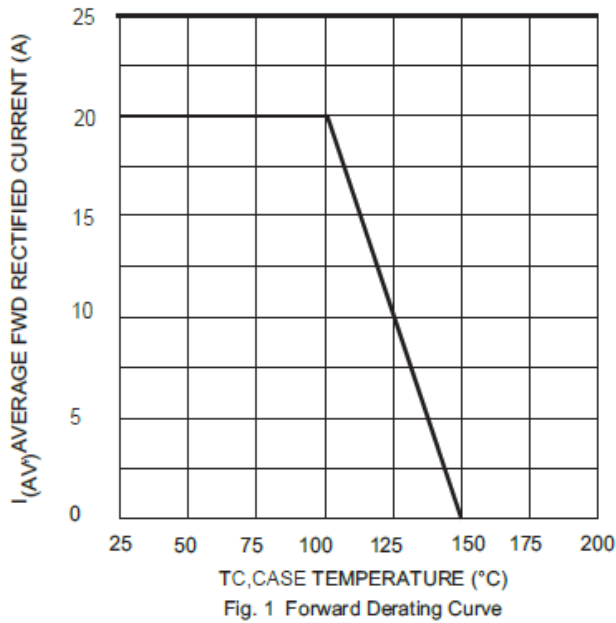
($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	MBR 2040	MBR 2060	MBR 2080	MBR 20100	MBR 20150	MBR 20200	Units
Max Peak Repetitive Reverse Voltage	V _{RRM}	40	60	80	100	150	200	V
Max RMS Voltage	V _{RMS}	28	42	56	70	105	140	V
Max DC Blocking Voltage	V _{DC}	40	60	80	100	150	200	V
Max Average Rectified Forward Current	I(AV)	20						A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method) (Rating of per diode)	I _{FSM}	150						A
Maximum instantaneous forward voltage at 1/2 I(AV)	V _F	0.55	0.75		0.85	0.90	0.95	A
Maximum DC reverse current at rated T _j =25°C	I _R	0.5		0.1			mA	
DC blocking voltage per T _j =100°C		50		10				
Power Dissipation (T _j = 25°C)	P _D	45						W
Typical Thermal Resistance	RθJC	2						°C / W
Isolation voltage (TO-220F only)	V _{AC}	1500						V
Operating Junction Temperature	T _J	-55 to +150						°C
Storage Junction Temperature	T _{STG}	-55 to +150						



Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise specified)

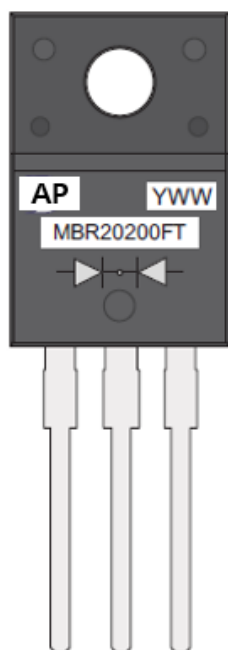




Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
MBR20200CT	TO-220-3L	Tube	Sn	Free	Tube=50pcs Inner = 1,000pcs MOQ = 5,000pcs
MBR20200FCT	TO-220F-3L	Tube	Sn	Free	

Marking Layout



YWW: Date Code

Y: Years(0~9)

WW: Week

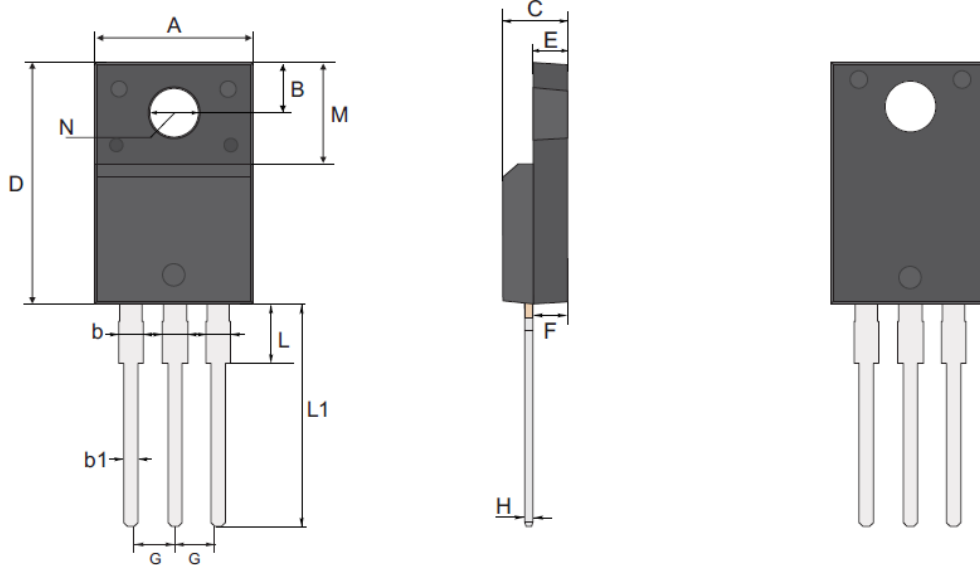
MBR20200FT: Product name

(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



Package Dimension

TO-220F-3L

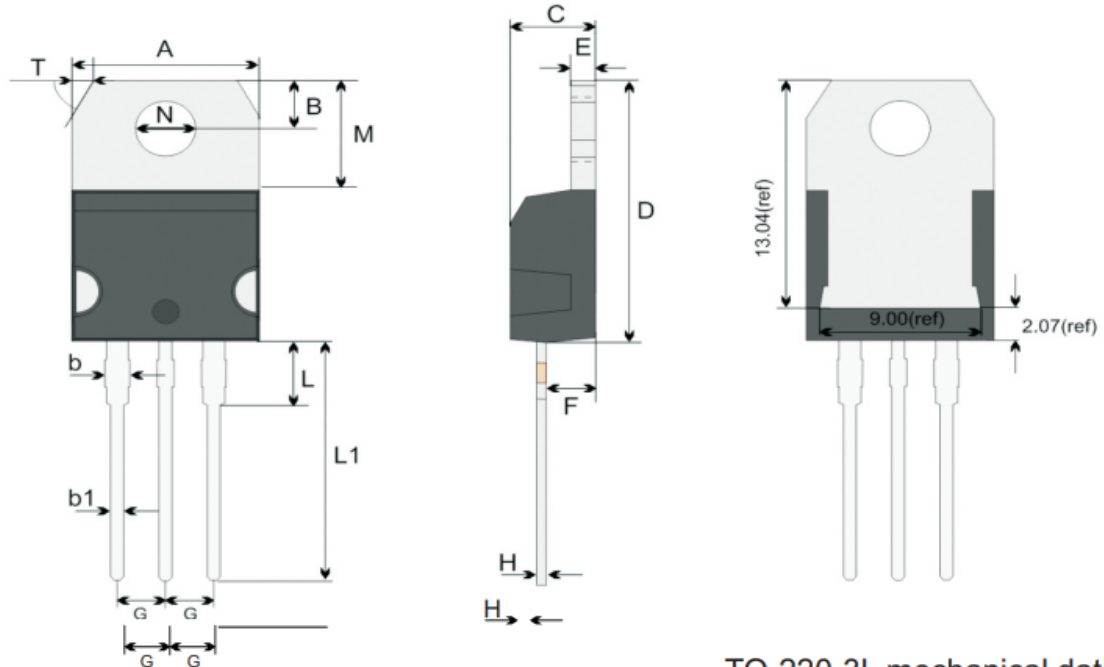


TO-220F-3L Mechanical data

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	



TO-220-3L



TO-220-3L mechanical data

UNIT		A	B	b	b1	C	D	E	F	G	H	L	L1	M	N	T
mm	max	10.28	2.84	1.67	0.9	4.65	15.54	1.37	2.79	2.64	0.6	3.88	13.13	6.39	3.82 typ.	1.19 58° ref.
	typ	10.18	2.74	1.47	0.8	4.45	15.34	1.27	2.59	2.54	0.5	3.68	12.93	6.19		
	min	10.08	2.64	1.27	0.7	4.25	15.14	1.17	2.39	2.44	0.4	3.48	12.73	5.99		
mil	max	405	112	66	35	183	612	54	110	104	24	153	517	252	150 typ.	47 58° ref.
	typ	401	108	58	31	175	604	50	102	100	20	145	509	244		
	min	397	104	50	28	167	596	46	94	96	16	137	501	236		



Revision History

No	Date	Contents
0	2024-05-03	Initial Brief Datasheet Release

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