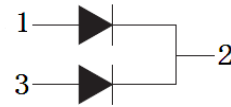


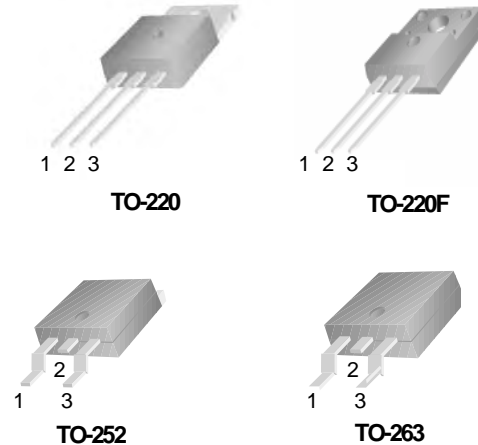
APPLICATIONS

- High frequency switch power supply
- Free wheeling diodes, polarity protection applications



FEATURES

- Common cathode structure
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability
- RoHS product



ORDER INFORMATION

Product	Package	Pin Assignment			Packing
		1	2	3	
MBR20100CT	TO-220	A	K	A	Tube
MBR20100FCT	TO-220F	A	K	A	Tube
MBR20100YCT	TO-263	A	K	A	Tape Reel
MBR20100DCT	TO-252	A	K	A	Tape Reel

ABSOLUTE RATINGS (Tc=25°C)

Parameter		Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	100	V
Maximum DC blocking voltage		V_{DC}	100	V
Average forward current	$T_C=150^{\circ}C$ (TO-220/263/ TO-252)	$I_{F(AV)}$	20	A
	$T_C=125^{\circ}C$ (TO-220F)		10	
Surge non repetitive forward current 8.3 ms single half-sine-wave (JEDEC Method)		I_{FSM}	200	A
Maximum junction temperature		T_j	150	°C
Storage temperature range		T_{STG}	-40~+150	°C

ELECTRICAL CHARACTERISTICS

Parameter	Tests conditions		Value(min)	Value(typ)	Value(max)	Unit
I_R	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			10	μA
V_F	$T_j = 25^\circ\text{C}$	$I_F = 10\text{A}$		0.82	0.85	V

THERMAL CHARACTERISTICS

Parameter		Symbol	Value(min)	Value(max)	Unit
Thermal resistance from junction to case	TO-220	$R_{th(j-c)}$		2.0	$^\circ\text{C/W}$
	TO-263			2.0	
	TO-252			3.0	
	TO-220F			4.0	

ELECTRICAL CHARACTERISTICS (curves)

