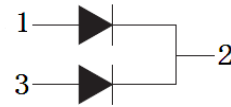


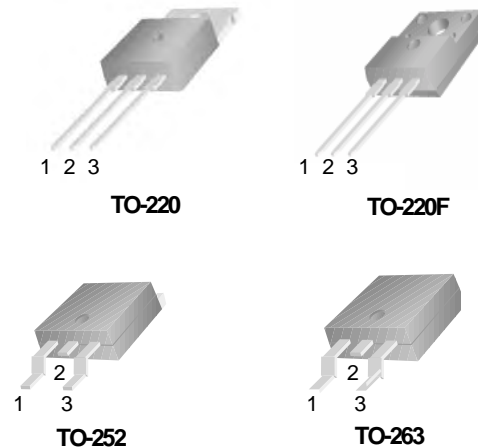
APPLICATIONS

- 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	
MBR30100CT	TO-220	A	K	A	Tube
MBR30100FCT	TO-220F	A	K	A	Tube
MBR30100YCT	TO-263	A	K	A	Tape Reel
MBR30100DCT	TO-252	A	K	A	Tape Reel

ABSOLUTE RATINGS (T_c=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°C (TO-220/263/ TO-252)	I _{F(AV)}	30	A
	T _c =125°C (TO-220F)		15	
Surge non repetitive forward current 8.3 ms single half-sine-wave (JEDEC Method)		I _{FSM}	300	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	$T_j = 25^\circ\text{C}$	$I_F = 15\text{A}$		0.84	0.86	V

THERMAL CHARACTERISTICS

Parameter		Symbol	Value(min)	Value(max)	Unit
Thermal resistance from junction to case	TO-220	$R_{th(j-c)}$		2	$^\circ\text{C/W}$
	TO-263			2	
	TO-252			3	
	TO-220F			4	

ELECTRICAL CHARACTERISTICS (curves)

