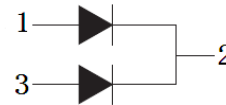


SCHOTTKY BARRIER DIODE

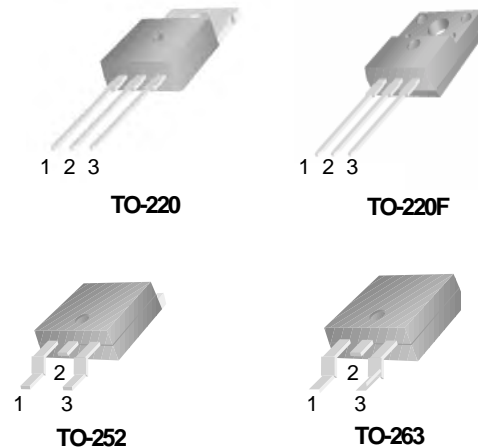
APPLICATIONS

- 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 (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)	$I_{F(AV)}$	per device	30	A
	$T_C=125^{\circ}C$ (TO-220F)		per diode	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	$\mu\text{A}$
$V_F$	$T_j = 25^\circ\text{C}$	$I_F = 15\text{A}$		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)**

