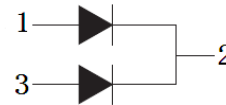


**SCHOTTKY BARRIER DIODE**

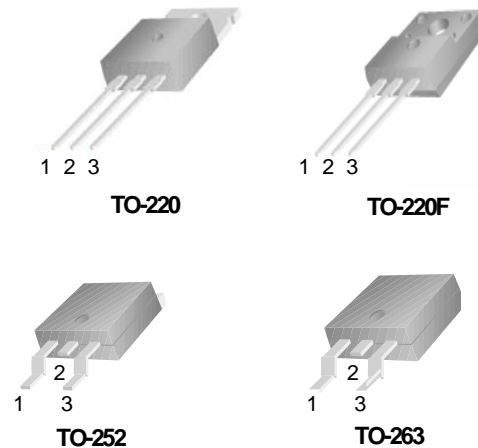
**APPLICATIONS**

- 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	
MBR10100CT	TO-220	A	K	A	Tube
MBR10100FCT	TO-220F	A	K	A	Tube
MBR10100YCT	TO-263	A	K	A	Tape Reel
MBR10100DCT	TO-252	A	K	A	Tape Reel

**ABSOLUTE RATINGS (T<sub>c</sub>=25°C)**

Parameter		Symbol	Value	Unit
Repetitive peak reverse voltage		V <sub>RRM</sub>	100	V
Maximum DC blocking voltage		V <sub>DC</sub>	100	V
Average forward current	T <sub>C</sub> =150°C (TO-220/263/ TO-252)	I <sub>F(AV)</sub>	10	A
	T <sub>C</sub> =125°C (TO-220F)		5	
Surge non repetitive forward current 8.3 ms single half-sine-wave (JEDEC Method)		I <sub>FSM</sub>	152	A
Maximum junction temperature		T <sub>j</sub>	150	°C
Storage temperature range		T <sub>STG</sub>	-40~+150	°C

**ELECTRICAL CHARACTERISTICS**

Parameter	Tests conditions		Value(min)	Value(typ)	Value(max)	Unit
$I_R$	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			5	$\mu\text{A}$
$V_F$	$T_j = 25^\circ\text{C}$	$I_F = 5\text{A}$		0.80	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)**

