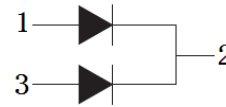


SCHOTTKY BARRIER DIODE

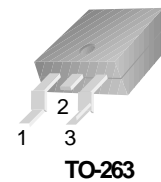
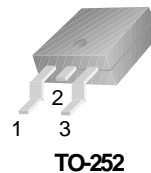
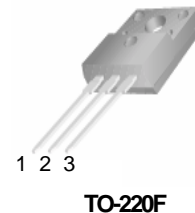
APPLICATIONS

- 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	
MBR1045CT	TO-220	A	K	A	Tube
MBR1045FCT	TO-220F	A	K	A	Tube
MBR1045YCT	TO-263	A	K	A	Tape Reel
MBR1045DCT	TO-252	A	K	A	Tape Reel

ABSOLUTE RATINGS (T_c=25°C)

Parameter		Symbol	Value	Unit
Repetitive peak reverse voltage		V _{RRM}	45	V
Maximum DC blocking voltage		V _{DC}	45	V
Average forward current	T _c =150°C (TO-220/263/ TO-252)	I _{F(AV)}	10	A
	T _c =125°C (TO-220F)		5	
Surge non repetitive forward current 8.3 ms single half-sine-wave (JEDEC Method)		I _{FSM}	160	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	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			60	μA
V_F	$T_j = 25^\circ\text{C}$	$I_F = 5\text{A}$		0.53	0.60	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)

