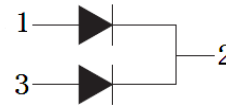


SCHOTTKY BARRIER DIODE

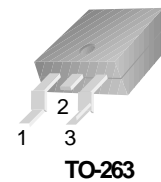
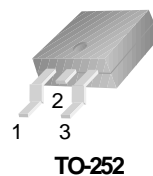
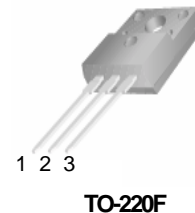
APPLICATIONS

- 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 (Tc=25°C)

Parameter		Symbol	Value	Unit
Repetitive peak reverse voltage		V <sub>RRM</sub>	45	V
Maximum DC blocking voltage		V <sub>DC</sub>	45	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>	160	A
Maximum junction temperature		T <sub>J</sub>	150	°C
Storage temperature range		T <sub>STG</sub>	-40~+150	°C

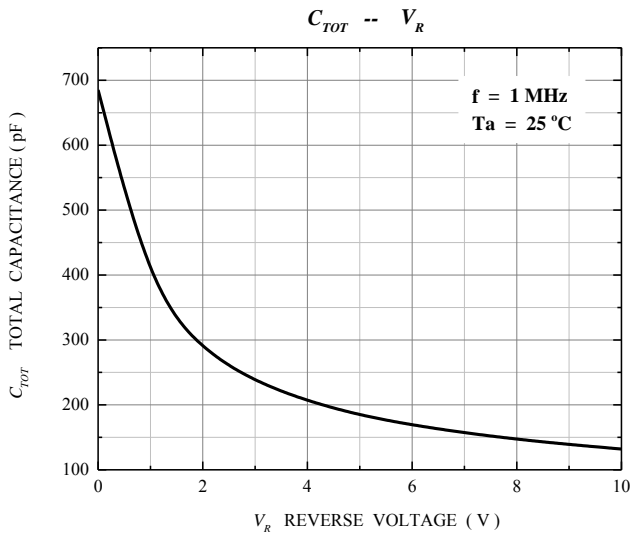
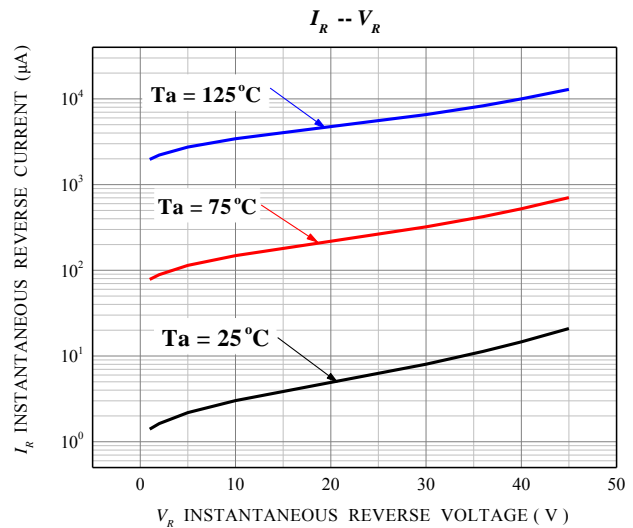
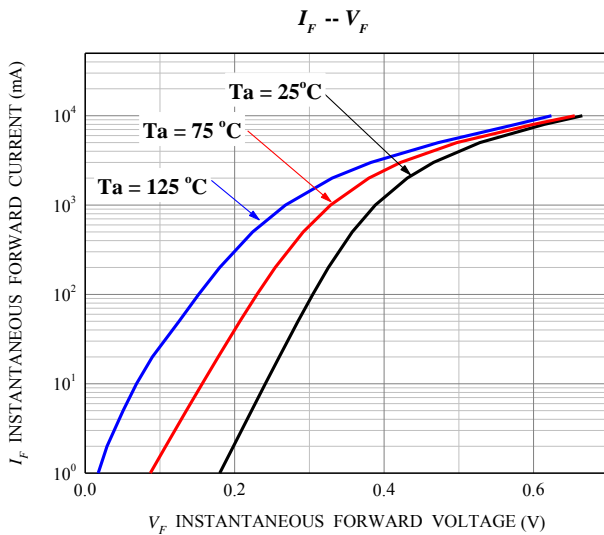
**ELECTRICAL CHARACTERISTICS**

Parameter	Tests conditions		Value(min)	Value(typ)	Value(max)	Unit
$I_R$	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			60	$\mu\text{A}$
$V_F$	$T_j = 25^\circ\text{C}$	$I_F = 5\text{A}$		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)**



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[BAS 3010S-02LRH E6327](#) [BAT 54-02LRH E6327](#) [NSR05F40QNXT5G](#) [NSVR05F40NXT5G](#) [NTE555](#) [JANS1N6640](#) [SB07-03C-TB-H](#)  
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