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MBR3030CT-MBR3060CT

30.0 AMPS. Schottky Barrier Rectifiers

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客户确认：

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日期			

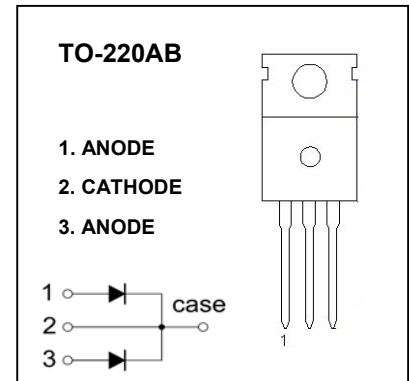


MBR3030CT-MBR3060CT

30.0 AMPS. Schottky Barrier Rectifiers

FEATURES

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value						Unit
		MBR 3030CT	MBR 3035CT	MBR 3040CT	MBR 3045CT	MBR 3050CT	MBR 3060CT	
V_{RRM}	Peak repetitive reverse voltage	30	35	40	45	50	60	V
V_{RWM}	Working peak reverse voltage							
V_R	DC blocking voltage							
$V_{R(RMS)}$	RMS reverse voltage	21	24.5	28	31.5	35	42	V
I_O	Average rectified output current@ $T_c=100^\circ\text{C}$	30						A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	200						A
P_D	Power dissipation	2						W
$R_{\theta JA}$	Thermal resistance from junction to ambient	50						$^\circ\text{C}/\text{W}$
T_j	Junction temperature	125						$^\circ\text{C}$
T_{stg}	Storage temperature	-55~+150						$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Device	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V _(BR)	MBR3030CT	I _R =1mA	30			V
		MBR3035CT		35			
		MBR3040CT		40			
		MBR3045CT		45			
		MBR3050CT		50			
		MBR3060CT		60			
Reverse current	I _R	MBR3030CT	V _R =30V			0.2	mA
		MBR3035CT	V _R =35V				
		MBR3040CT	V _R =40V				
		MBR3045CT	V _R =45V				
		MBR3050CT	V _R =50V				
		MBR3060CT	V _R =60V				
Forward voltage	V _{F1}	MBR3030CT-3045CT	I _F =15A			0.7	V
		MBR3050CT,3060CT				0.8	
	V _{F2} *	MBR3030CT-3045CT	I _F =30A			0.84	V
		MBR3050CT,3060CT				0.95	
Typical total capacitance	C _{tot}	MBR3030CT-3045CT	V _R =4V,f=1MHz		450		pF
		MBR3050CT,3060CT			400		

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

MBR3020CT-MBR30200CT

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

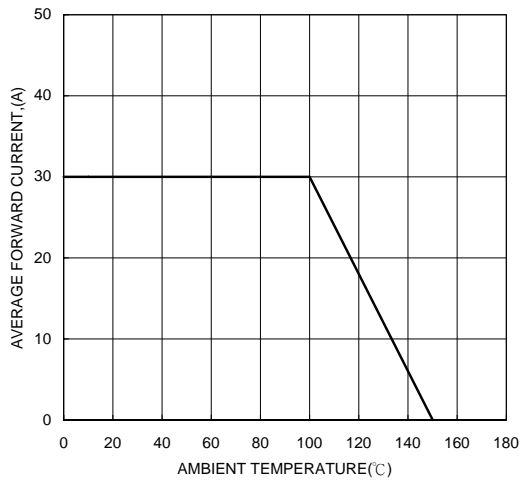


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

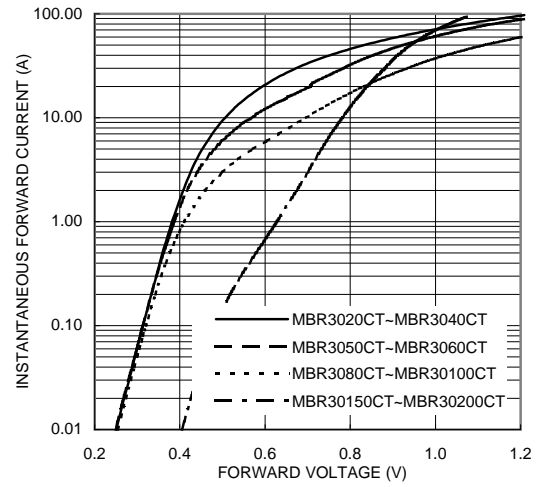


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

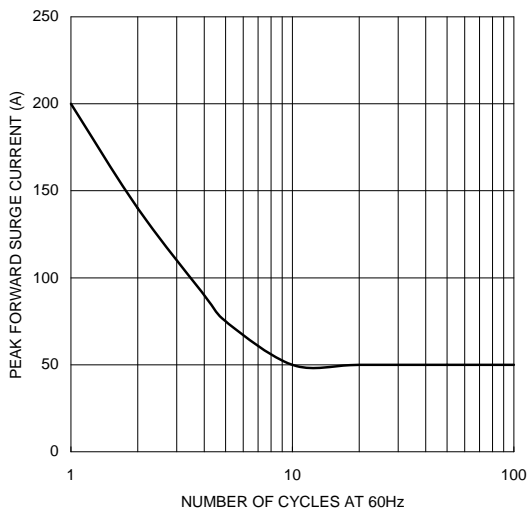


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

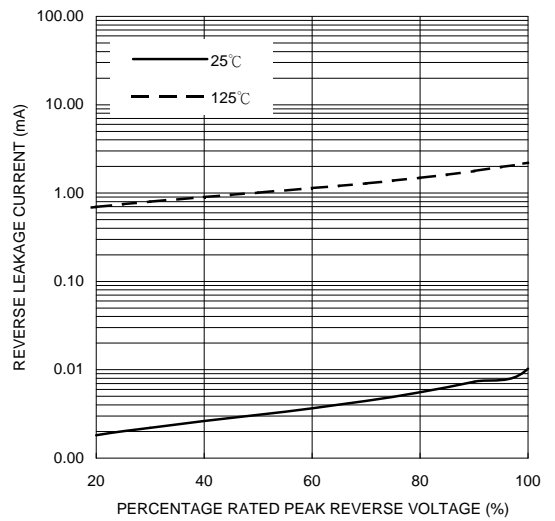


FIG. 5-TYPICAL JUNCTION CAPACITANCE

