Data Sheet

Customer：	
Product :	High Power Schottky Diode
Part No.:	MBR3040CT/MBR3060CT/MBR30100CT/MBR30150CT MBR30200CT/MBR30250CT
Issued Date:	11-Jan-11
Edition :	REV.A

VIKING TECH CORPORATION
光頡科技股份有限公司

No.70, Kuanfu N. Rad.,
Hsin Chu Industrial Park,
Hukou Hsiang, Hsin Chu Hsien,
303, Taiwan
TEL:886-3-5972931
FAX:886-3-5972935•886-3-5973494
E-mail:sales@viking.com.tw

VIKING TECH CORPORATION KAOHSIUNG BRANCH
光頡科技股份有限公司高雄分公司

No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,
806, Taiwan

TEL:886-7-8217999
FAX:886-7-8228229
E-mail:sales@viking.com.tw

WUXI TMTEC CO., LTD.
無錫泰銘電子有限公司

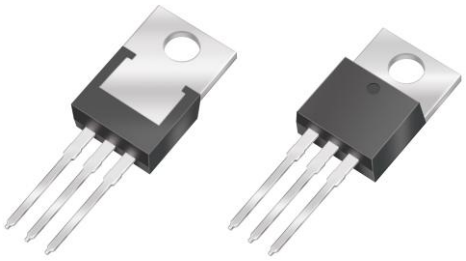
No.1A,(Xixia Road),Machinery & Industry Park,
National Hi-Tech Industrial Development Zone of
Wuxi, Wuxi, Jiangsu Province, China
Zip Code:214028
TEL:86-510-85203339
FAX:86-510-85203667•86-510-85203977
E-mail:wuxisales@tmtec.com.tw

Produced by (QC)	Checked (QC)	Approved by (QC)	Prepared by (Sales)	Accepted by (Customer)
11-Jan-11	11-Jan-11	11-Jan-11	11-Jan-11	
Kris	***Ann***	***J.C Liu***		

30 Amperes High Power Schottky Barrier Rectifiers
Voltage : 40 to 250Volts

■Features

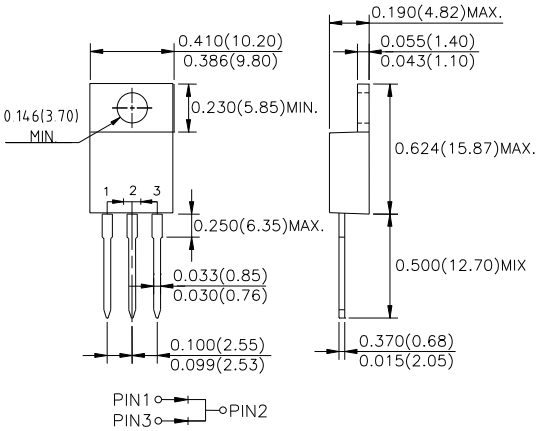
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet environmental standards of MIL-STD-19500/228



■Mechanical Data

Epoxy : UL94-V0 rated flame retardant
Case : JEDEC TO-220AB molded plastic body over passivated chip
Lead : Axial lead, solderable per MIL-STD-202, Method 208 guranteed
Polarity : Color band denotes cathode end
Mounting Position : Any
Weight : Approximated 2.25 gram
Packaging : 50pcs per Tube

■Package Dimensions in inches(millimeters): TO-220AB



■Maximum Ratings And Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Symbol	MBR3040CT	MBR3060CT	MBR30100CT	MBR30150CT	MBR30200CT	MBR30250CT	Unit
Marking Code		MBR3040CT	MBR3060CT	MBR30100CT	MBR30150CT	MBR30200CT	MBR30250CT	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	60	100	150	200	250	V
Maximum RMS Voltage	V_{RMS}	28	42	70	105	140	175	V
Maximum DC Blocking Voltage	V_{DC}	40	60	100	150	200	250	V
Maximum Forward Voltage@15A, T_A=25℃ @15A, T_A=125℃ @30A, T_A=25℃	V_F	0.70 0.57 0.84	0.79 0.70 0.95	0.81 0.71 0.95	0.87 0.77 1.0	0.90 0.80 1.0	0.95 0.85 -	V
Operating Temperature	T_J	-50 ~ +150						℃

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.1	I_O			30	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			200	A
Reverse Current	V_R=V_{RRM} , T_A=25℃	I_R			0.1	mA
	V_R=V_{RRM} , T_A=125℃				10	
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		30		℃/W
Diode Junction Capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		150		pF
Storage Temperature		T_{STG}	-50		+150	℃

Tel: +886-3-597-2931／Fax: +886-3-597-2935
70, Kuanfu N Road, HsinChu Industrial Park, 303 Taiwan, ROC

■Rated and Characteristic Curve

Fig.1 - Forward Current Derating Curve

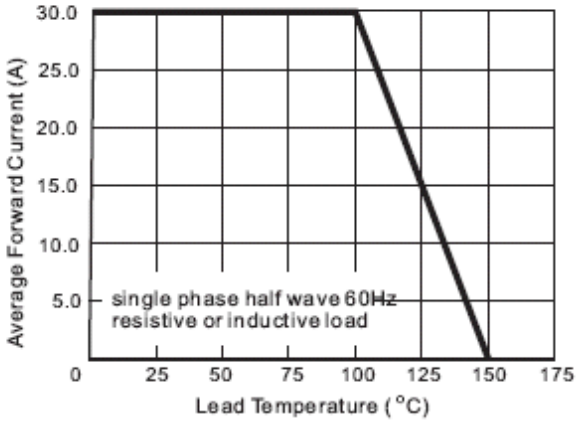


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

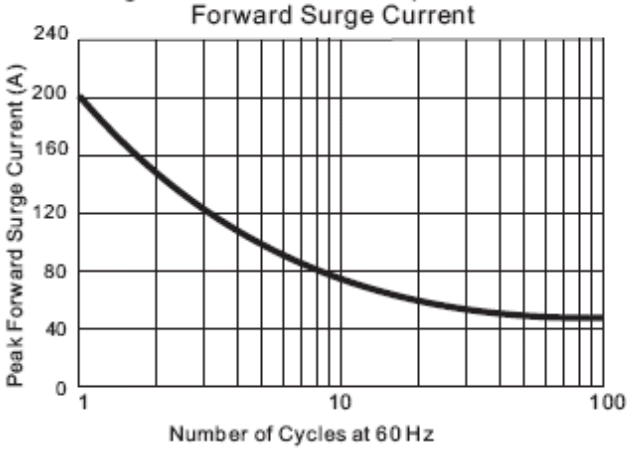


Fig. 3A - Typical Instantaneous Forward Characteristics

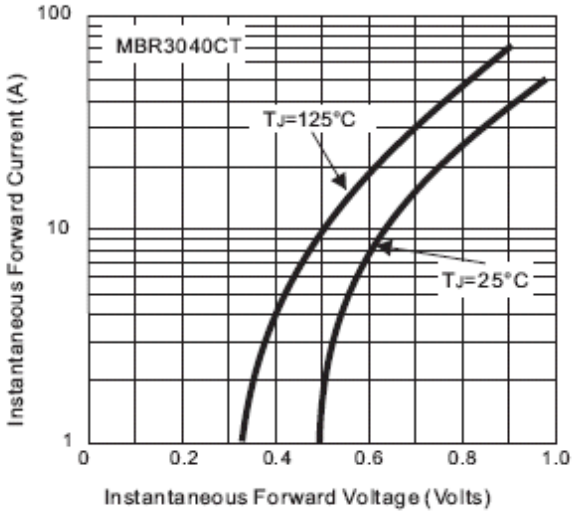


Fig. 3B - Typical Instantaneous Forward Characteristics

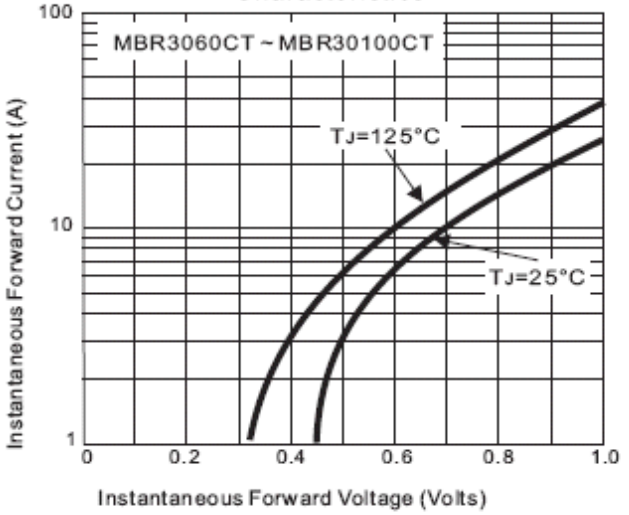


Fig. 3C - Typical Instantaneous Forward Characteristics

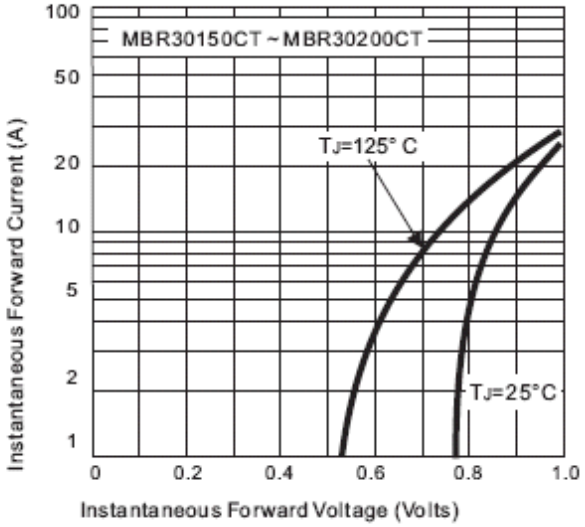
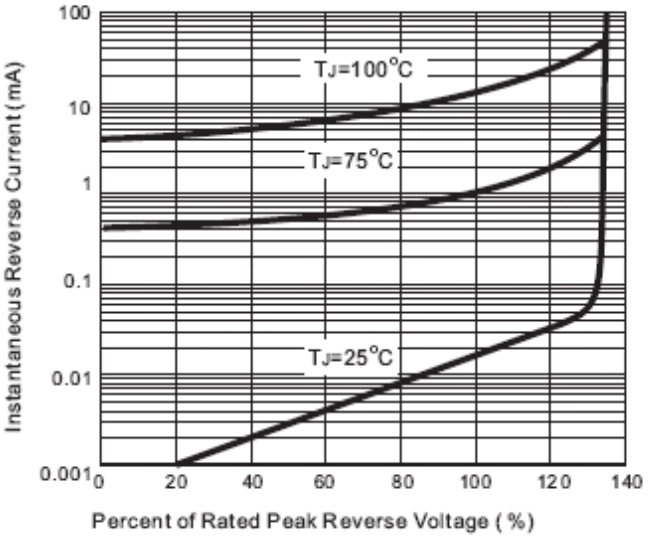


Fig. 4 - Typical Reverse Characteristics



Tel: +886-3-597-2931／Fax: +886-3-597-2935
70, Kuanfu N Road, HsinChu Industrial Park, 303 Taiwan, ROC