Data Sheet

Customer：	
Product :	High Power Schottky Diode
Part No.:	MBRF20L40CT/MBRF20L60CT/MBRF20L100CT/MBRF20L150CT MBRF20L200CT/MBRF20L250CT
Issued Date:	11-Jan-11
Edition :	REV.A

RoHS Compliant

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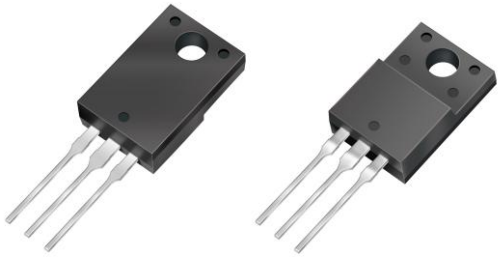
Kris	***Ann***	***J.C Liu***		

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

■Features

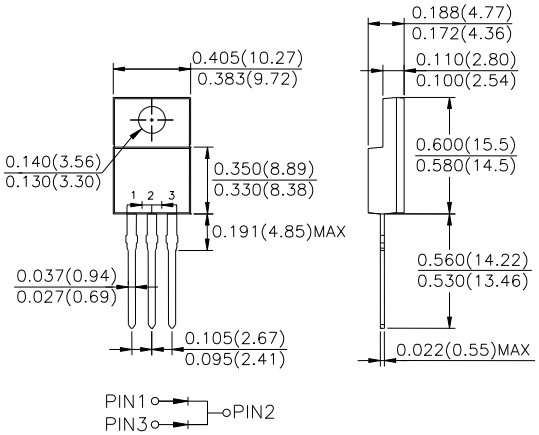
- For use in low voltage, high frequency inverters, free wheeling and polarity protection applications
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial 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 ITO-220AB molded plastic body over
Terminals : Axial leads, 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): ITO-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	MBRF20L40CT	MBRF20L60CT	MBRF20L100CT	MBRF20L150CT	MBRF20L200CT	MBRF20L250CT	Unit
Marking Code		MBRF20L40CT	MBRF20L60CT	MBRF20L100CT	MBRF20L150CT	MBRF20L200CT	MBRF20L250CT	
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@10A, T_A=25℃ @15A, T_A=25℃	V_F	0.60 0.70	0.65 0.79	0.75 0.81	0.82 0.87	0.85 0.90	0.90 0.95	V
Operating Temperature	T_J	-50 ~ +150						℃

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Forward Rectified Current	See Fig.1	I_O			20	A
Forward Surge Current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			150	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	℃

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■Rated and Characteristic Curve

Fig. 1 - Forward Current Derating Curve

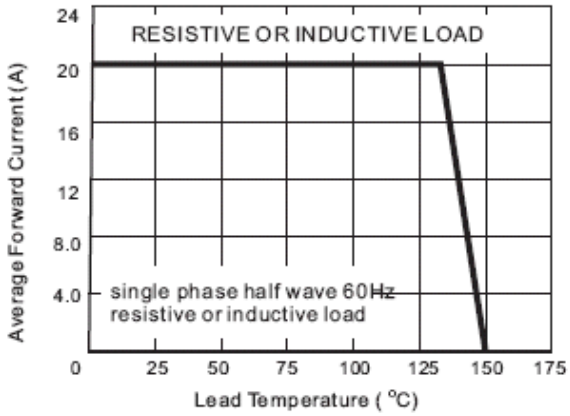

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

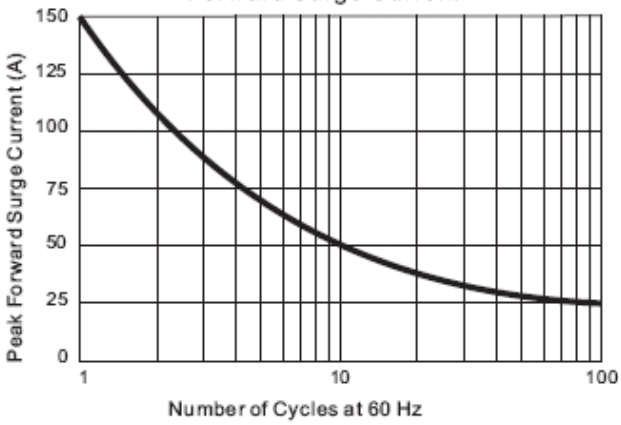

Fig. 3.1 - Typical Instantaneous Forward Characteristics

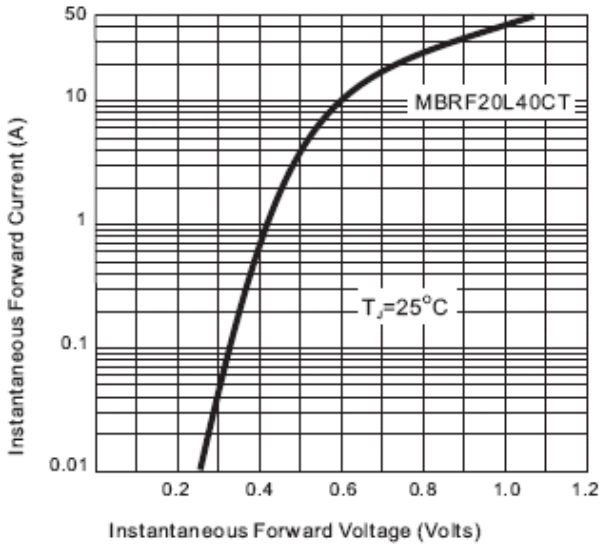

Fig. 3.2 - Typical Instantaneous Forward Characteristics

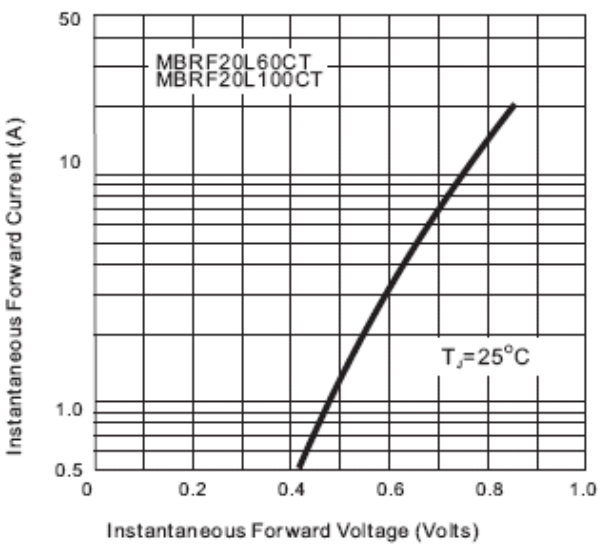

Fig. 3.3 - Typical Instantaneous Forward Characteristics

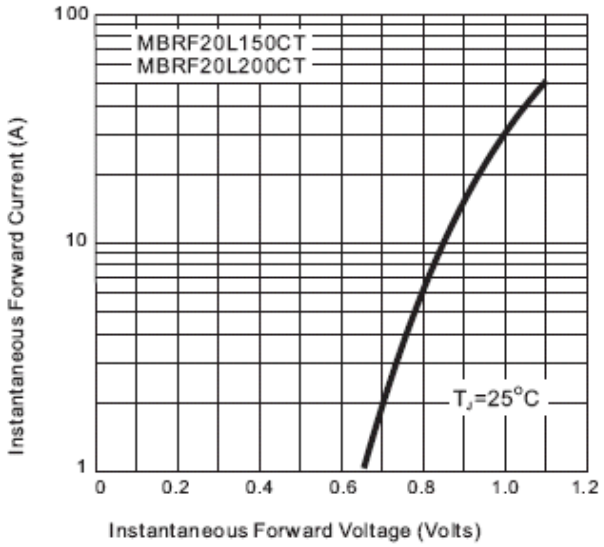

Fig. 4 - Typical Reverse Characteristics