

Features

- Low Power Loss, High Efficiency
- Guardring For Overvoltage Protection
- Low Forward Voltage Drop And High Frequency Operation
- For Use in High Frequency Inverters, Free Wheeling And Polarity Protection Applications
- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance Per Leg: 4.0°C/W Junction to Case

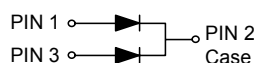
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR30150FCT	MBR30150FCT	150V	105V	150V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Maximum Average Forward Rectified Current	$I_{F(AV)}$	30A	(See Fig.1)
Peak Forward Surge Current	I_{FSM}	260A	8.3ms, Half Sine
Peak Repetitive Reverse Current Per Leg	I_{RRM}	1.0A	$t_p = 2.0\mu s$, 1KHz
Voltage Rate of Change (Rated V_R)	dv/dt	10,000V/ μs	
Maximum Instantaneous Forward Voltage Per Leg (Note 5)	V_F	0.90V 0.75V 0.99V 0.86V	$I_F=15A, T_C=25^\circ C$ $I_F=15A, T_C=125^\circ C$ $I_F=30A, T_C=25^\circ C$ $I_F=30A, T_C=125^\circ C$
Maximum Reverse Current Per Leg at Working Peak Reverse Voltage	I_R	5.0 μA 1.0mA	$T_J=25^\circ C$ $T_J=125^\circ C$
RMS Isolation Voltage (MBRF type only) From Terminals to Heatsink With $t = 1.0$ Second, RH $\leq 30\%$	V_{ISOL}	4500V 3500V 1500V	(Note 2) (Note 3) (Note 4)

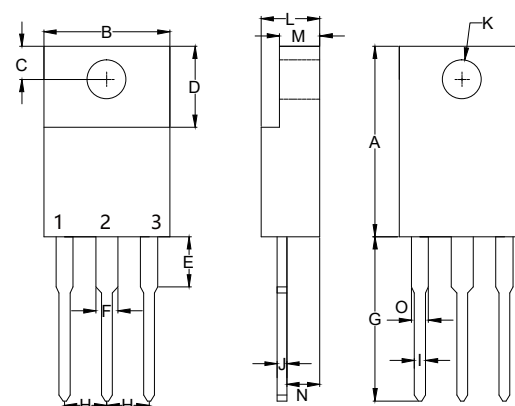
Note : 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
 2. Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset
 3. Clip mounting (on case), where leads do overlap heatsink
 4. Screw mounting with 4-40 screw, where washer diameter is < 4.9 mm (0.19")
 5. Pulse test: 300 μs pulse width, 1% duty cycle

Internal Structure



30 Amp Schottky Barrier Rectifier 150 Volts

ITO-220AB



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.567	0.642	14.40	16.30	
B	-----	0.421	-----	10.70	
C	0.085	0.128	2.15	3.25	
D	0.248	0.272	6.30	6.90	
E	-----	0.177	-----	4.50	
F	-----	0.071	-----	1.80	
G	0.500	0.539	12.70	14.20	
H	0.100		2.55		
I	-----	0.035	-----	0.90	
J	-----	0.032	-----	0.80	
K	0.102	0.150	2.60	3.80	Φ
L	-----	0.201	-----	5.10	
M	-----	0.140	-----	3.56	
N	0.083	0.126	2.10	3.20	
Q	-----	0.071	-----	1.80	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

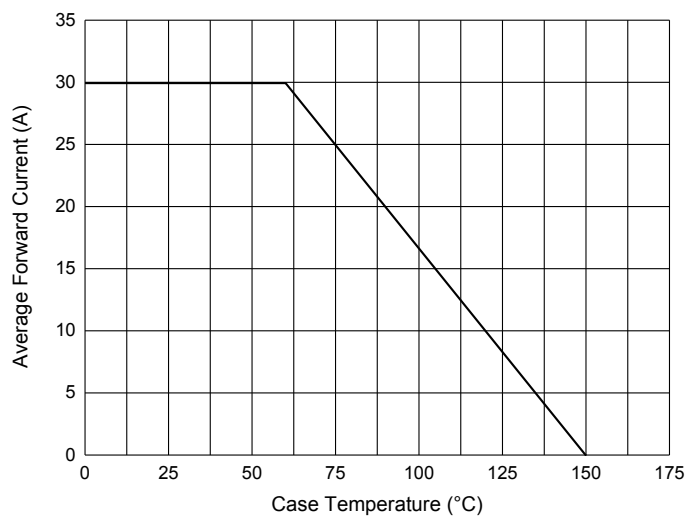


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

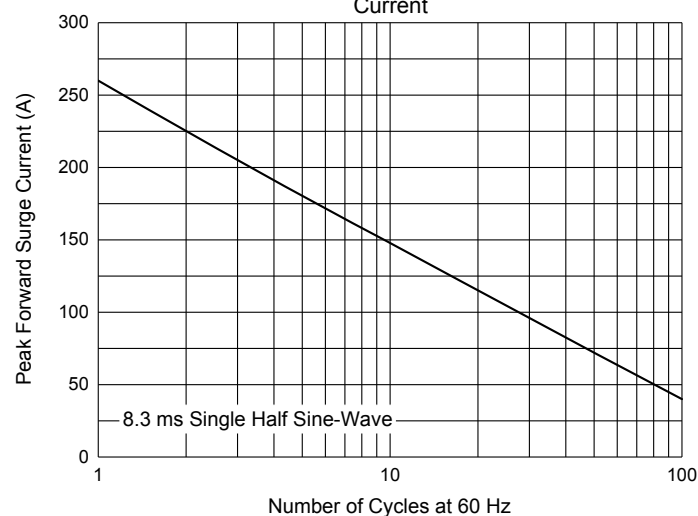


Fig. 3 - Typical Instantaneous Forward Characteristics

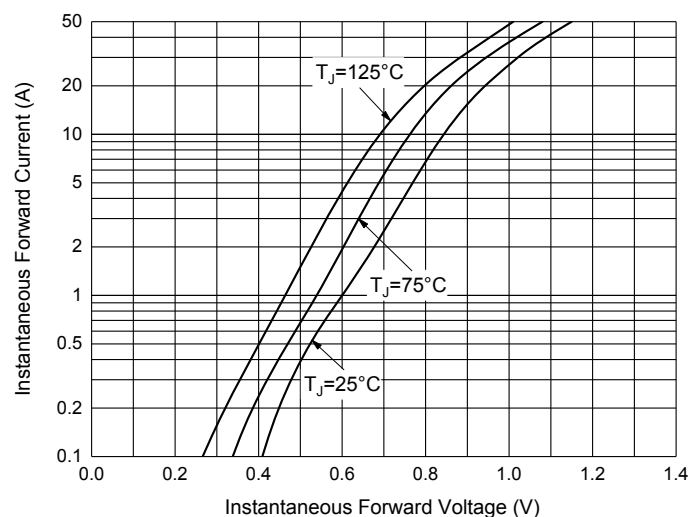
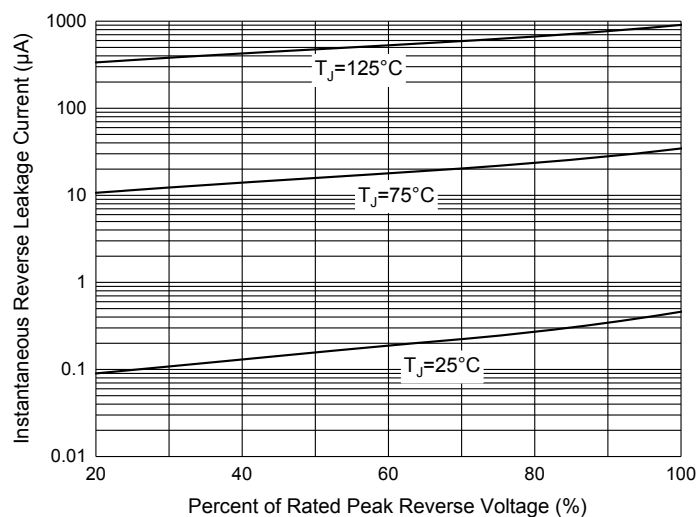


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Tube, 1Kpcs/Box, 5Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp.** products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.