

# Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Low Power Loss, High Efficiency
- Low VF and Low IR
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- 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: 2.0°C/W Junction to Case

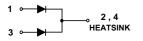
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRL3045CT	MBRL3045CT	45V	31.5V	45V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

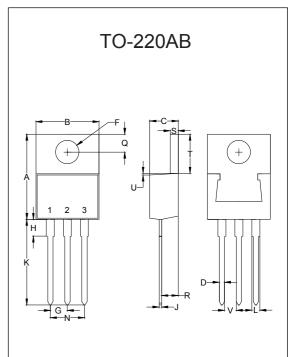
Average Forward Current	I <sub>F(AV)</sub>	30A	T <sub>C</sub> =115⁰C	
Peak Forward Surge Current	I <sub>FSM</sub>	250A	8.3ms,Half Sine	
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.53V	I <sub>FM</sub> =15A; T <sub>A</sub> =25°C	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.2mA 50mA	T <sub>A</sub> =25⁰C T <sub>A</sub> =100⁰C	

Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex Notes 7a.

### **Internal Structure**



# 30 Amp Low VF Schottky Barrier Rectifier 45 Volts



			IENSIO		
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
А	0.560	0.625	14.22	15.88	
В	0.380	0.429	9.65	10.90	
С	0.140	0.201	3.56	5.10	
D	0.020	0.045	0.51	1.14	
F	0.131	0.170	3.34	4.31	Φ
G	0.079	0.121	2.01	3.07	
Н		0.250		6.35	
J	0.011	0.025	0.28	0.64	
Κ	0.500	0.580	12.70	14.73	
L	0.045	0.060	1.14	1.52	
Ν	0.158	0.242	4.02	6.14	
Q	0.087	0.135	2.22	3.43	
R	0.080	0.126	2.04	3.19	
S	0.045	0.055	1.14	1.39	
Т	0.230	0.270	5.84	6.86	
U		0.050		1.27	
V	0.045		1.15		



# **Curve Characteristics**

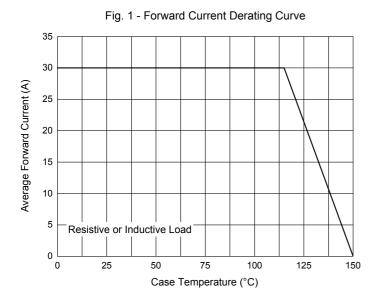
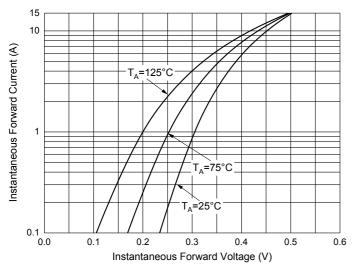


Fig. 3 - Typical Instantaneous Forward Characteristics



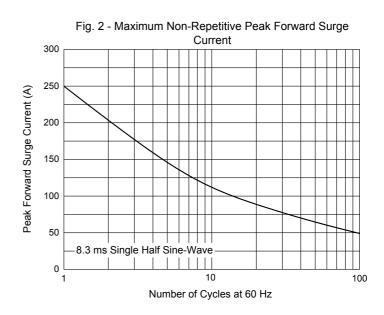
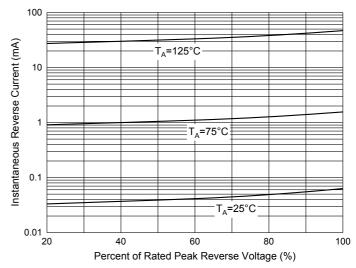


Fig. 4 - Typical Reverse Leakage Characteristics





# **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

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