

# Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Low Power Loss and High Efficiency
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 2.0°C/W Junction to Case

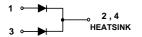
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRBL40120CT	MBRBL40120CT	120V	84V	120V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

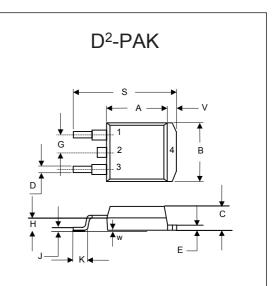
I			
Average Forward Current	I <sub>F(AV)</sub>	40A	T <sub>C</sub> =100⁰C
Peak Forward Surge Current	I <sub>FSM</sub>	300A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	0.82V 0.75V(Typ.)	I <sub>FM</sub> =20A; T <sub>J</sub> =25⁰C
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1mA 10mA	Tյ=25⁰C Tյ=100⁰C

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

#### **Internal Structure**

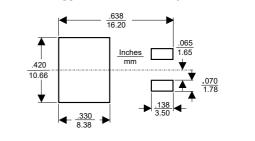


# 40 Amp Low VF Schottky Barrier Rectifier 120 Volts



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	0.331	0.370	8.40	9.40	
В	0.378	0.417	9.60	10.60	
С	0.165	0.189	4.20	4.80	
D	0.027	0.037	0.68	0.94	
Е	0.045	0.055	1.14	1.40	
G	0.0	010	2.	54	TYP.
Н	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
Κ	0.071	0.131	1.80	3.32	
S	0.575	0.625	14.60	15.87	
V	0.042	0.058	1.07	1.47	
W	0.000	0.010	0.00	0.25	

#### Suggested Solder Pad Layout





# **Curve Characteristics**

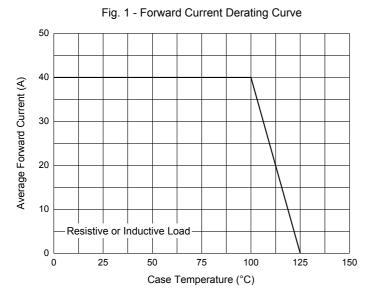
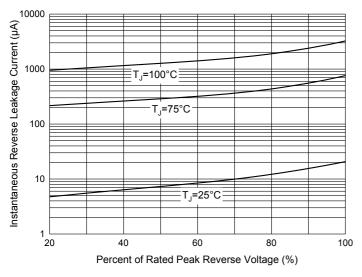


Fig. 3 - Typical Reverse Leakage Characteristics



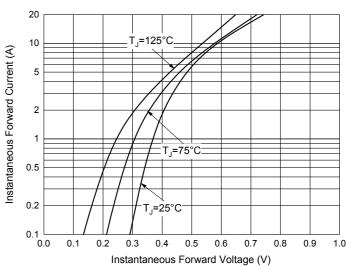


Fig. 2 - Typical Instantaneous Forward Characteristics



# **Ordering Information**

Device	Packing	
Part Number-TP	Tape&Reel: 800pcs/Reel	
Part Number-BP	Tube: 5Kpcs/Ctn	

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

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