

Features

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

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 2.0°C/W Junction to Case

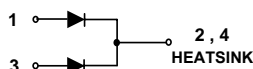
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRB1520CT	MBRB1520CT	20V	14V	20V
MBRB1530CT	MBRB1530CT	30V	21V	30V
MBRB1535CT	MBRB1535CT	35V	24.5V	35V
MBRB1540CT	MBRB1540CT	40V	28V	40V
MBRB1545CT	MBRB1545CT	45V	31.5V	45V
MBRB1560CT	MBRB1560CT	60V	42V	60V
MBRB1580CT	MBRB1580CT	80V	56V	80V
MBRB15100CT	MBRB15100CT	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	15A	$T_C=105^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	1520CT-1545CT 0.84V 1560CT 0.75V 1580CT-15100CT 0.92V	$I_{FM}=15\text{A};$ $I_{FM}=7.5\text{A};$ $T_J=25^\circ\text{C}^*$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	1520CT-1545CT 0.1mA 1560CT-15100CT 0.01mA 1520CT-1545CT 20mA 1560CT 10mA 1580CT-15100CT 2mA	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$

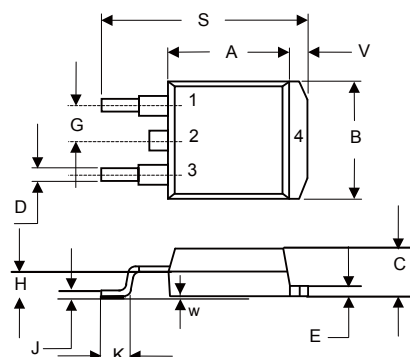
*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%
Note:1. High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 7a.

Internal Structure



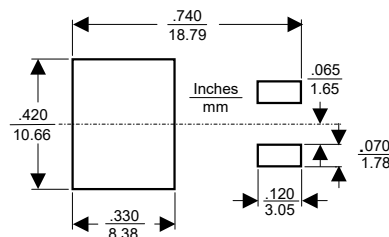
15 Amp Schottky Barrier Rectifier 20 to 100 Volts

D²-PAK



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.320	0.359	8.13	9.14	
B	0.374	0.453	9.50	11.50	
C	0.160	0.200	4.06	5.10	
D	0.020	0.038	0.51	0.96	
E	0.045	0.055	1.14	1.40	
G	0.083	0.110	2.10	2.80	
H	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
K	0.090	0.131	2.29	3.32	
S	0.575	0.652	14.22	16.55	
V	0.042	0.058	1.07	1.47	
W	0.000	0.008	0.00	0.20	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

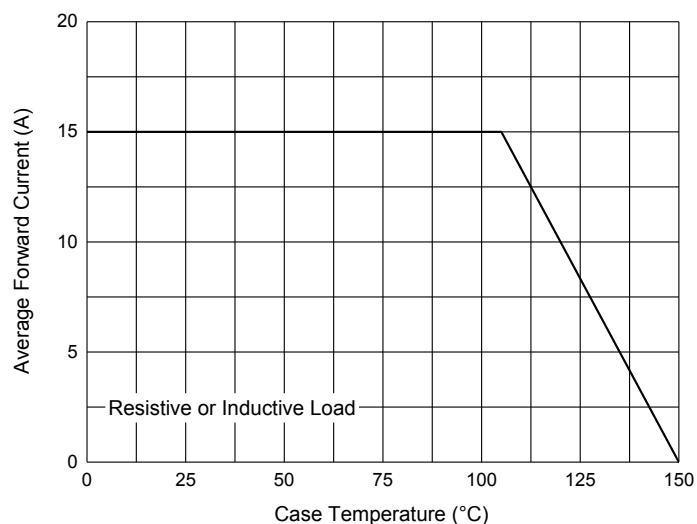


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

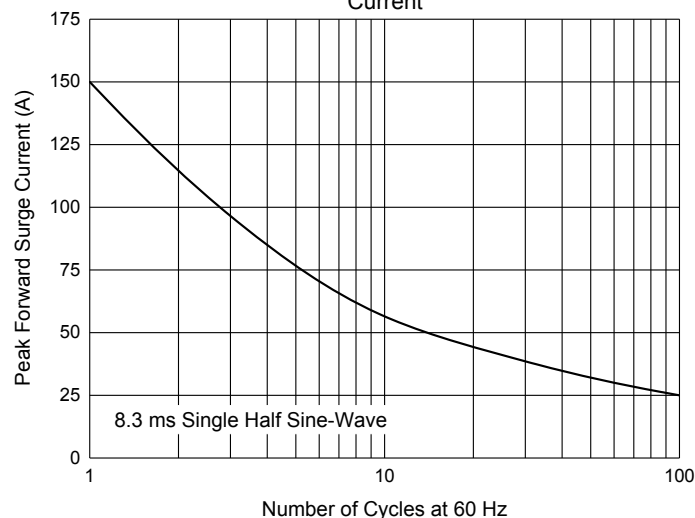


Fig. 3 - Typical Instantaneous Forward Characteristics

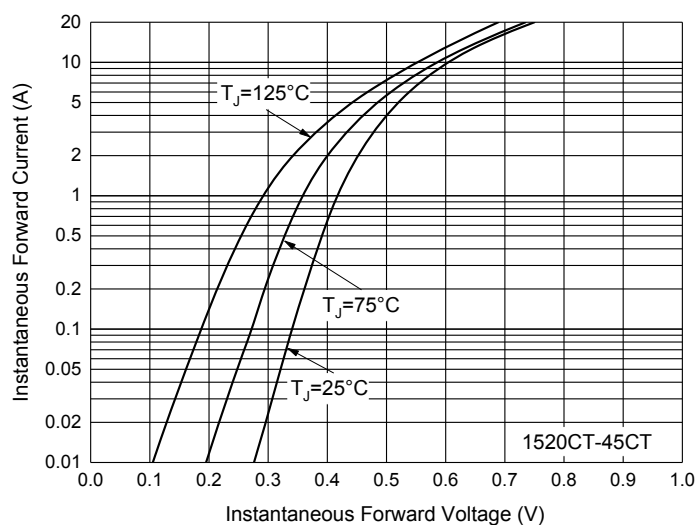


Fig. 4 - Typical Instantaneous Forward Characteristics

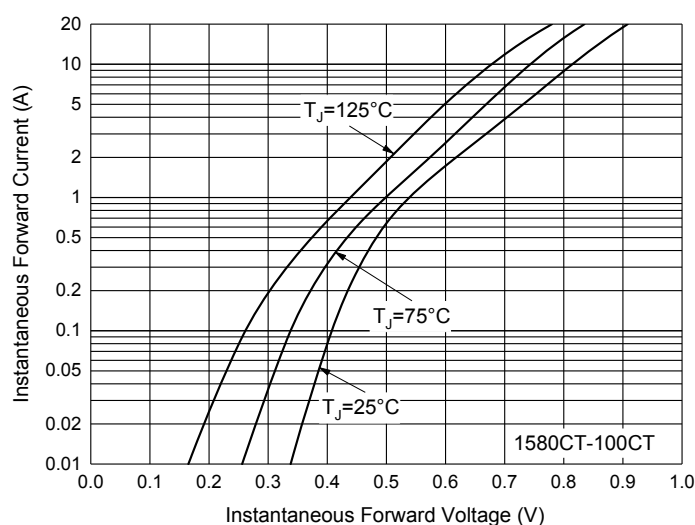


Fig. 5 - Typical Reverse Leakage Characteristics

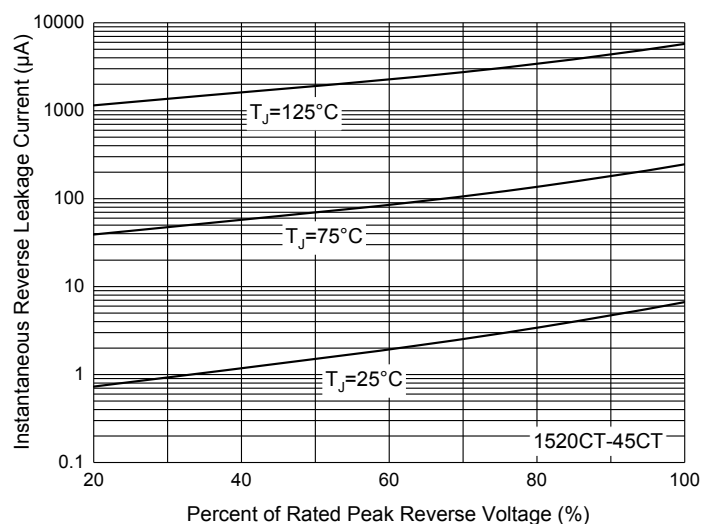
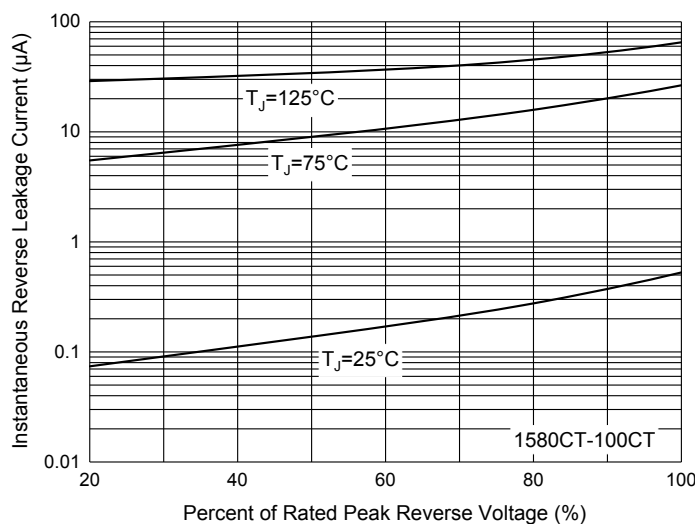


Fig. 6 - Typical Reverse Leakage Characteristics



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

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.

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.