

Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/Rohs Compliant (Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- High Surge Current Capability
- Low Power Loss, High Efficiency
- Low Reverse Leakage Current
- Super Fast Switching Speed For High Efficiency

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 3.0°C/W Junction to Case

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURB1010CT	100V	70V	100V
MURB1020CT	200V	140V	200V
MURB1040CT	400V	280V	400V
MURB1060CT	600V	420V	600V

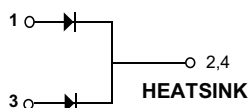
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_C=115^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	100A	8.3ms, Half Sine
Maximum Forward Voltage MURB1010CT-1020CT MURB1040CT MURB1060CT	V_F	0.95V 1.30V 1.50V	$I_{FM}=5A$ Per Leg $T_J=25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10μA	$T_J=25^\circ\text{C}$
Maximum Reverse Recovery Time MURB1010CT-1020CT MURB1040CT-1060CT	t_{rr}	35ns 50ns	$I_F=0.5A$; $I_R=1.0A$; $I_{RR}=0.25A$

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

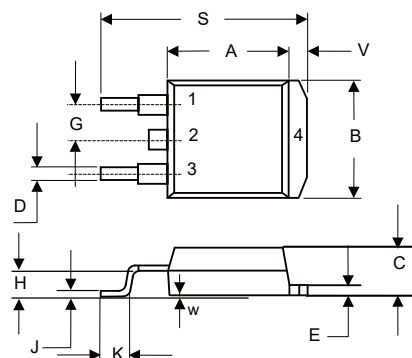
2. High temperature solder exemption applied, see EU directive annex 7a.

Internal Structure



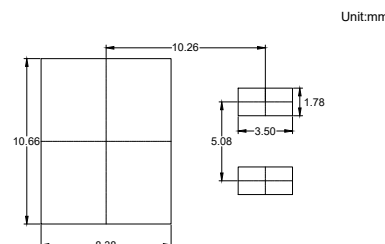
10 Amp Super Fast Recovery Rectifier 100 to 600 Volts

D²-PAK



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.331	0.370	8.40	9.40	
B	0.378	0.417	9.60	10.60	
C	0.165	0.189	4.20	4.80	
D	0.027	0.037	0.68	0.94	
E	0.045	0.055	1.14	1.40	
G	0.10		2.54		TYP.
H	0.096	0.134	2.43	3.40	
J	0.011	0.025	0.28	0.64	
K	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. 1 - Forward Current Derating Curve

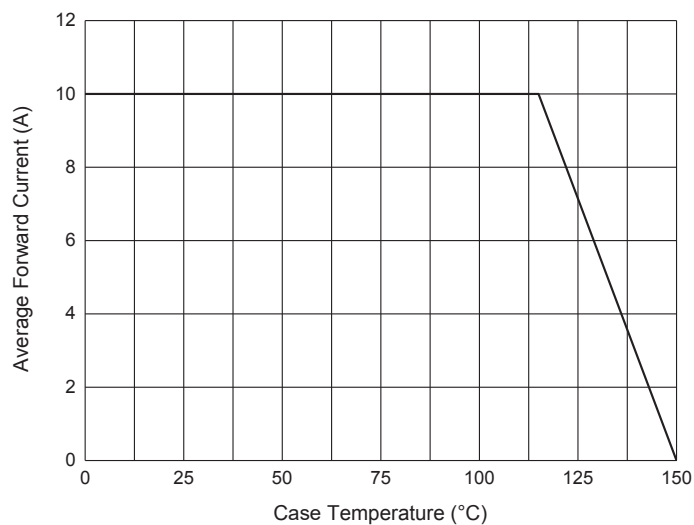


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

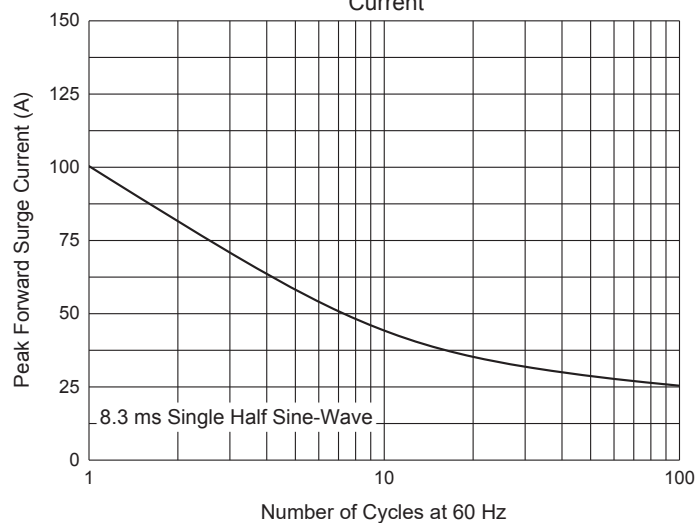


Fig. 3 - Typical Instantaneous Forward Characteristics

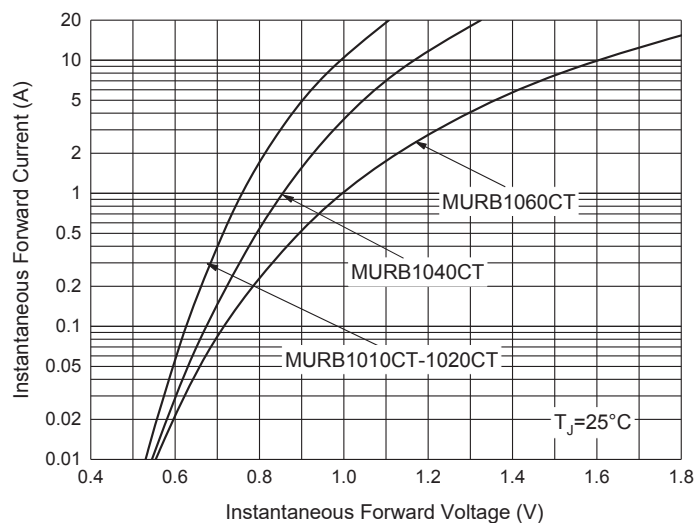
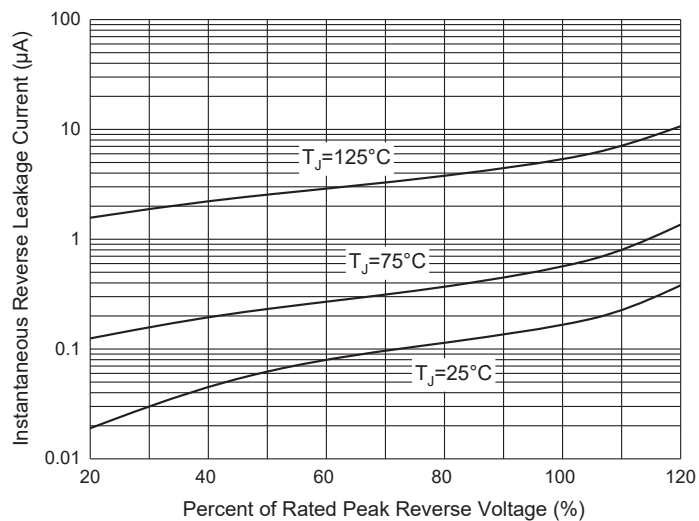


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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