

## Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)
- High Efficiency
- High Reliability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Junction Temperature Range: -40°C to +150°C
- Storage Temperature Range: -40°C to +150°C
- Typical Thermal Resistance (Per Leg): 3°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURD5120	MURD5120	1200V	840V	1200V

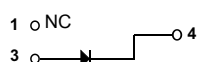
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5.0A	$T_C = 115^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, Half Sine
Forward Voltage	$V_F$	1.7V(Typ) 2.2V(Max) 1.6V(Max)	$I_F=5A; T_J=25^\circ\text{C}$ $I_F=5A; T_J=25^\circ\text{C}$ $I_F=5A; T_J=125^\circ\text{C}$
Reverse Current at Rated $V_R$	$I_R$	0.05 $\mu\text{A}$ (Typ) 5 $\mu\text{A}$ (Max) 100 $\mu\text{A}$ (Max)	$T_J=25^\circ\text{C};$ $T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C};$
Maximum Reverse Recovery Time	$t_{rr}$	65ns	$I_F=0.5A; I_R=1.0A;$ $I_{RR}=0.25A$
Forward Recovery Time	$t_{fr}$	315ns(Typ)	$I_F=5A; dI_F/dt=50A/\mu\text{s};$ $V_{FR}=1.5 \times V_{Fmax};$
Forward Recovery Voltage	$V_{FP}$	8.9V(Typ)	$T_J=25^\circ\text{C}$

### Note:

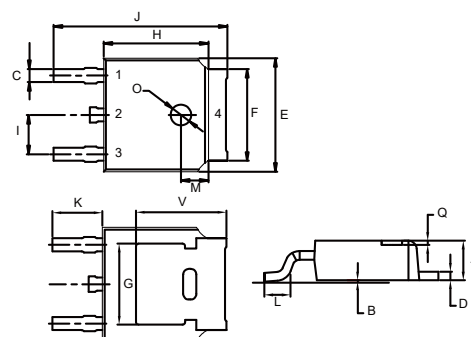
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

## Internal Structure



# 5 Amp Super Fast Rectifiers 1200 Volts

## DPAK(TO-252)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

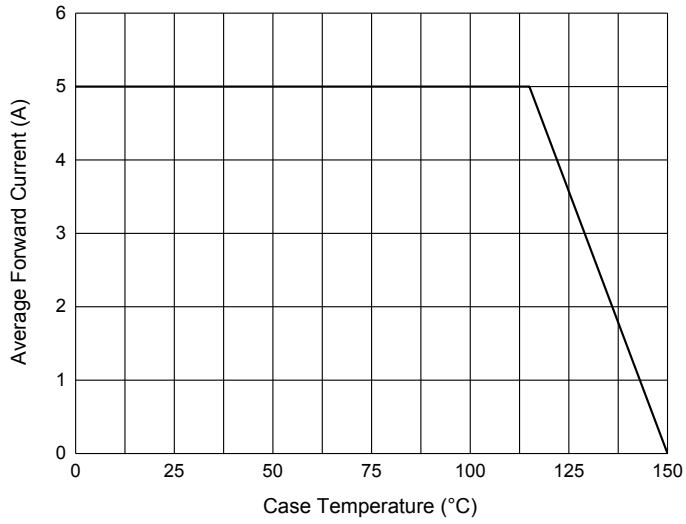


Fig. 2 - Typical Forward Characteristics

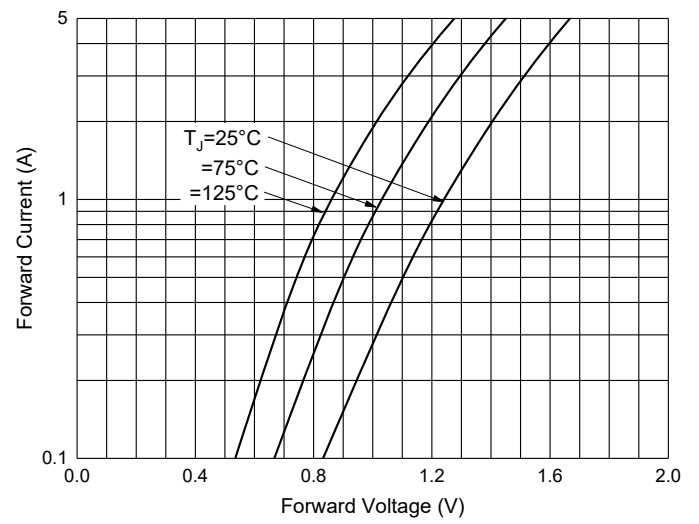
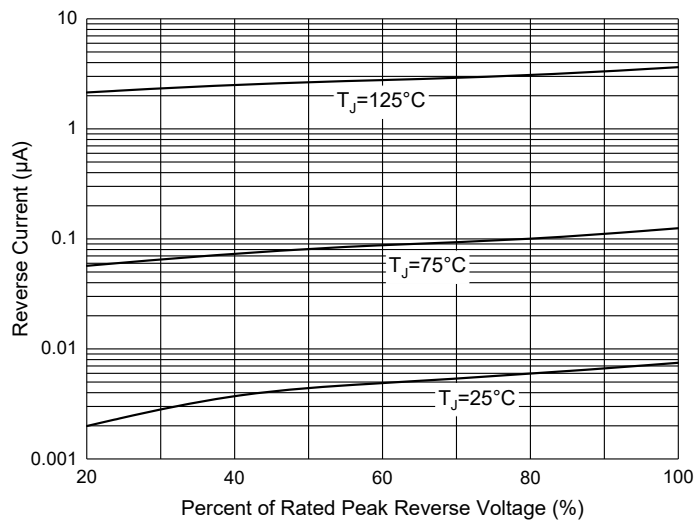


Fig. 3 - Typical Reverse Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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