

#### **Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Low Switching Losses and High Efficiency
- Low Reverse Leakage
- Planar Structure Die and Soft Recovery Characteristics

## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Maximum Thermal Resistance: 2°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MURS1560A	MURS1560A	600V	420V	600V

#### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Rectified Forward Current	I <sub>F(AV)</sub>	15A	T <sub>C</sub> = 130°C
Peak Forward Surge Current	I <sub>FSM</sub>	160A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.32V(Typ) 1.6V(Max) 1.4V(Max)	I <sub>F</sub> =15A;T <sub>J</sub> =25°C I <sub>F</sub> =15A;T <sub>J</sub> =25°C I <sub>F</sub> =15A;T <sub>J</sub> =125°C
Maximum Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5μΑ 50μΑ	T <sub>J</sub> =25°C; T <sub>J</sub> =125°C
Typical Junction Capacitance	CJ	100pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

### Dynamic Recovery Characteristics @ 25°C Unless Otherwise Specified

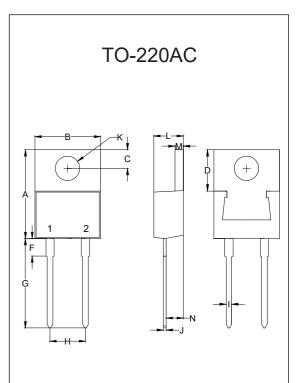
Reverse Recovery Time	t <sub>rr</sub>	31ns(Typ.) 40ns(Max.)	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; I <sub>RR</sub> =0.25A	
		95ns(Typ.) 145ns(Typ.)	T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I - 15 A
Peak recovery current	I <sub>RRM</sub>	5.0A(Typ.) 9.5A(Typ.)	T <sub>J</sub> =25°C T <sub>J</sub> =125°C	$I_F = 15 \text{ A}$ $di_F/dt = 200 \text{ A/}\mu\text{s}$ $V_R = 400 \text{ V}$
Reverse recovery charge	Q <sub>rr</sub>	245nC(Typ.) 710nC(Typ.)	T <sub>J</sub> =25°C T <sub>J</sub> =125°C	

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

#### Internal Structure



# 15 Amp FRED Rectifiers 600 Volts



	DIMENSIONS					
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	0.560	0.625	14.22	15.88		
В	0.380	0.420	9.65	10.67		
С	0.100	0.135	2.54	3.43		
D	0.230	0.270	5.84	6.86		
F		0.250		6.35		
G	0.500	0.580	12.70	14.73		
Н	0.190	0.210	4.83	5.33		
ı	0.020	0.045	0.51	1.14		
J	0.012	0.025	0.30	0.64		
K	0.139	0.161	3.53	4.09	Ф	
L	0.140	0.190	3.56	4.83		
М	0.045	0.055	1.14	1.40		
N	0.080	0.115	2.03	2.92		



#### **Curve Characteristics**

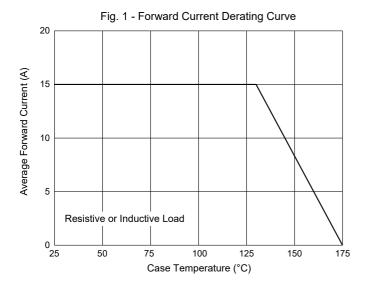


Fig. 3 - Typical Instantaneous Forward Characteristics

20

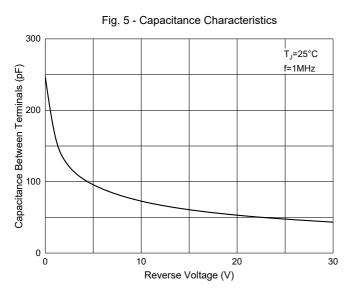
T<sub>J</sub>=25°C
=100°C
=125°C
=150°C
=150°C

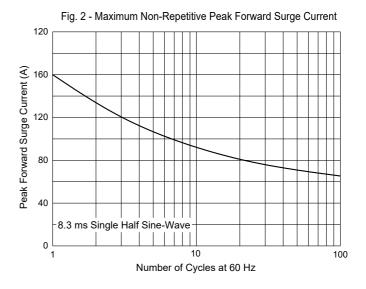
1.0

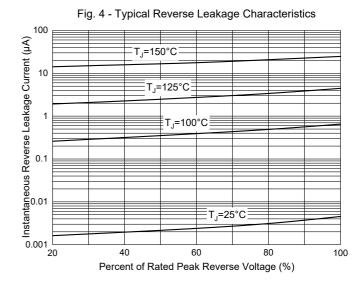
Instantaneous Forward Voltage (V)

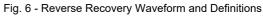
1.4

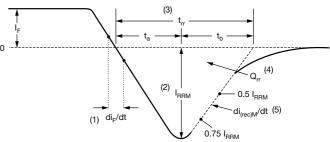
1.6











- (1) di<sub>F</sub>/dt rate of change of current through zero crossing
- (2) I<sub>RRM</sub> peak reverse recovery current
- (3) t<sub>rr</sub> reverse recovery time measured from zero crossing point of negative going I<sub>F</sub> to point where a line passing through 0.75 I<sub>RRM</sub> and 0.50 I<sub>RRM</sub> extrapolated to zero current.
- (4)  $\mathbf{Q}_{\rm rr}$  area under curve defined by  $\mathbf{t}_{\rm rr}$  and  $\mathbf{I}_{\rm RRM}$

$$Q_{rr} = \frac{t_{rr} \times I_{RRM}}{2}$$

(5) di<sub>(rec)M</sub>/dt - peak rate of change of current during t<sub>b</sub> portion of t<sub>rr</sub>

1 <u></u>

0.6

0.8



### **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

#### \*\*\*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. **Micro Commercial Components Corp**, products are sold subject to the general terms and conditions of commercial sale, as published at

https://www.mccsemi.com/Home/TermsAndConditions.

#### \*\*\*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.

## 单击下面可查看定价,库存,交付和生命周期等信息

## >>MCC(美微科)