

**Features**

- High Surge Current Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- 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 +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance(Note 2): 13°C/W Junction to Lead
- Typical Thermal Resistance(Note 2): 47°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
US5A	US5A	50V	35V	50V
US5B	US5B	100V	70V	100V
US5D	US5D	200V	140V	200V
US5F	US5F	300V	210V	300V
US5G	US5G	400V	280V	400V
US5J	US5J	600V	420V	600V
US5K	US5K	800V	560V	800V
US5M	US5M	1000V	700V	1000V

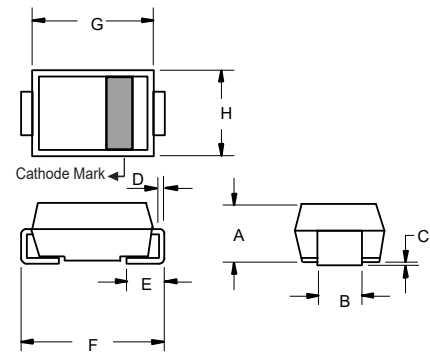
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	5.0A	$T_L=75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	1.0V 1.3V 1.7V	$I_F=5.0A;$ $T_A=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5µA 200µA	$T_A=25^\circ\text{C};$ $T_A=100^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{RR}$	50ns 75ns	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A$

Note: 1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.  
2. Thermal Resistance From Junction to Ambient and From Junction to Lead Mounted on P.C.B. With 0.3"x0.3"(8.0mm x 8.0mm) Copper Pad Areas.

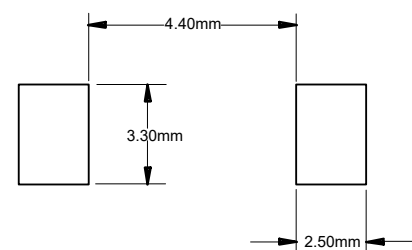
**5 Amp Ultra Fast Rectifier  
50 to 1000 Volts**

**SMC (DO-214AB)**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

**Suggested Solder Pad Layout**



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

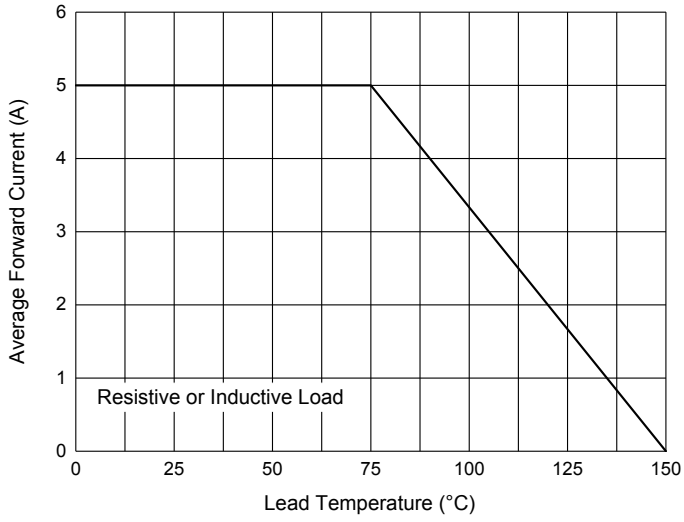


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

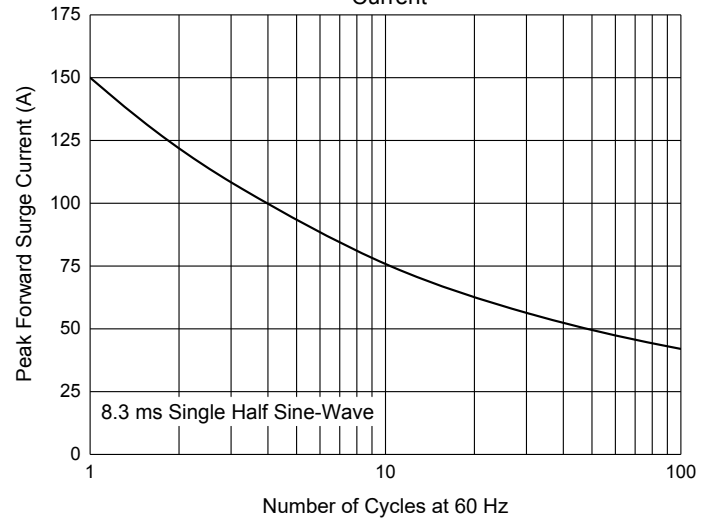


Fig. 3 - Typical Instantaneous Forward Characteristics

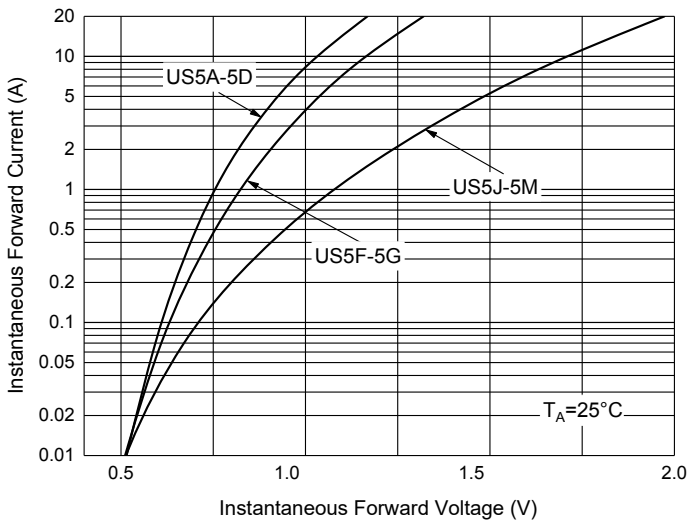
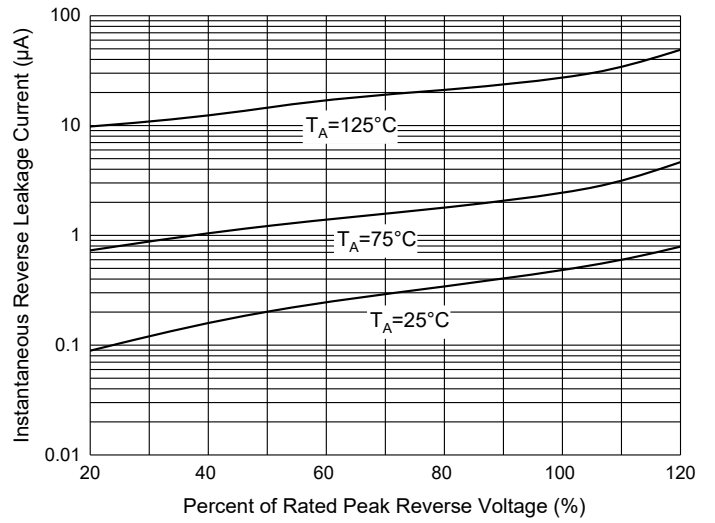


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Rectifiers](#) category:*

*Click to view products by [Micro Commercial Components \(MCC\)](#) manufacturer:*

Other Similar products are found below :

[D91A](#) [DA24F4100L](#) [DD89N1600K-A](#) [DD89N16K-K](#) [RL252-TP](#) [DLA11C-TR-E](#) [DSA17G](#) [1N4005-TR](#) [BAV199-TP](#) [UFS120Je3/TR13](#)  
[JANS1N6640US](#) [VS-80-1293](#) [DD89N16K](#) [DD89N16K-A](#) [481235F](#) [DSP10G-TR-E](#) [RRE02VS6SGTR](#) [067907F](#) [MS306](#) [ND104N08K](#)  
[SPA2003-B-D-A01](#) [VS-80-6193](#) [VS-66-9903](#) [VGF0136AB](#) [US2JFL-TP](#) [UFS105Je3/TR13](#) [A1N5404G-G](#) [ACGRA4007-HF](#) [ACGRB207-HF](#)  
[RF301B2STL](#) [RF501B2STL](#) [UES1306](#) [UES1302](#) [BAV199E6433HTMA1](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [JANTXV1N5660A](#) [UES1106](#)  
[GS2K-LTP](#) [D126A45C](#) [D251N08B](#) [SCHJ22.5K](#) [SM100](#) [SCPA2](#) [SCH10000](#) [SDHD5K](#) [STTH20P035FP](#) [VS-8EWS12S-M3](#) [VS-](#)  
[12FL100S10](#) [ACGRA4001-HF](#)