



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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# **UF5400 THRU UF5408**

## **Features**

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information) Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

- Low Forward Voltage Drop and Low Leakage, Ultra Fast Switching Speed For High Efficiency Halogen free available upon request by adding suffix "-HF"

## **Maximum Ratings**

- Operating Temperature: -55°C to +150°C Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance 20°C/W

MCC	Device	Maximum	Maximum	Maximum
Catalog	Marking	Recurrent	RMS	DC
Number		Peak Reverse	Voltage	Blocking
		Voltage		Voltage
UF5400		50V	35V	50V
UF5401		100V	70V	100V
UF5402		200V	140V	200V
UF5404		400V	280V	400V
UF5405		500V	350V	500V
UF5406		600V	420V	600V
UF5407		800V	560V	800V
UF5408		1000V	700V	1000V

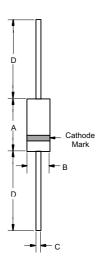
#### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I <sub>F(AV)</sub>	3 A	T <sub>A</sub> = 55°C
Peak Forward Surge Current	I <sub>FSM</sub>	150A	8.3ms, half sine
Maximum			
Instantaneous			
Forward Voltage			
UF5400-5402	$V_{F}$	1.0V	$I_{FM} = 3.0A;$
UF5404		1.3V	T <sub>A</sub> = 25°C
UF5405-UF5408		1.7V	
Reverse Current At	I <sub>R</sub>	10μΑ	T <sub>A</sub> = 25°C
Rated DC Blocking		50μA	T <sub>A</sub> = 100°C
Voltage (Maximum DC)			
Maximum Reverse			
Recovery Time			
UF5400-5404	T <sub>rr</sub>	50ns	$I_F$ =0.5A, $I_R$ =1.0A,
UF5405-5408		75ns	I <sub>rr</sub> =0.25A
Typical Junction			
Capacitance			
UF5400-5404	CJ	75pF	Measured at
UF5405-5408		50pF	1.0MHz, $V_R$ =4.0V

Notes:1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

# 3 Amp Ultra Fast **Recovery Rectifier** 50 to 1000 Volts

### **DO-201AD**



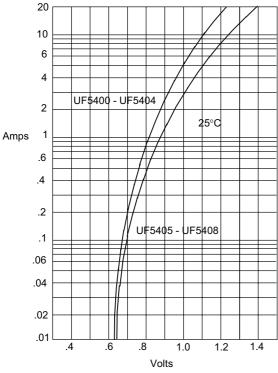
DIMENSIONS							
	INCHES		MM				
DIM	MIN	MAX	MIN	MAX	NOTE		
Α	.287	.374	7.30	9.50			
В	.189	.208	4.80	5.30			
С	.048	.052	1.20	1.30			
D	1.000		25.40				

## UF5400 thru UF5408

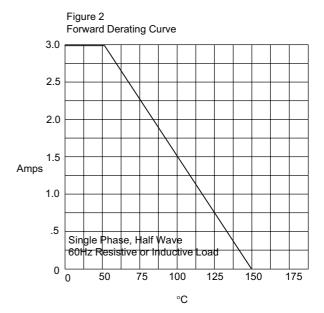


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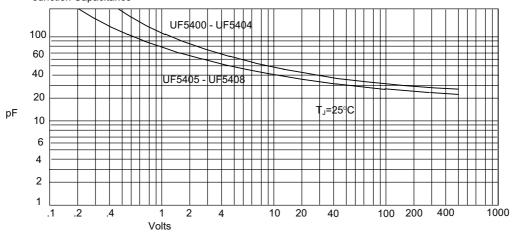


Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts



Average Forward Rectified Current - Amperes/ersus Ambient Temperature -°C



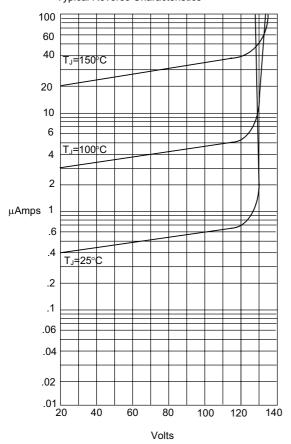


Junction Capacitance - pF*versus* Reverse Voltage - Volts

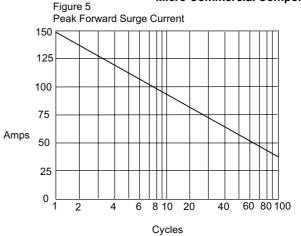


### UF5400 thru UF5408

Figure 4
Typical Reverse Characteristics



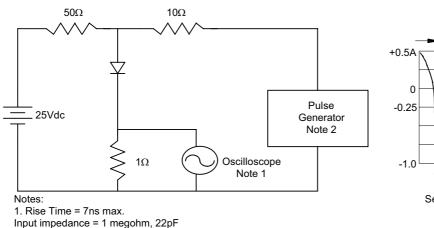
2. Rise Time = 10ns max. Source impedance = 50 ohms 3. Resistors are non-inductive **Micro Commercial Components** 

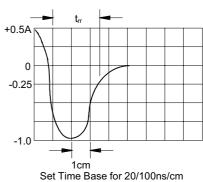


Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles

Instantaneous Reverse Leakage Current - MicroAmperesversus Percent Of Rated Peak Reverse Voltage - Volts

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram







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## **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel: 1.2Kpcs/Reel
Part Number-AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number-BP	Bulk: 12Kpcs/Carton

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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