

**Micro Commercial Components** 



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# FR201GP THRU FR207GP

## **Features**

- Halogen free available upon request by adding suffix "-HF"
- High Current Capability
- Fast Switching Speed For High Efficiency
- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

# Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

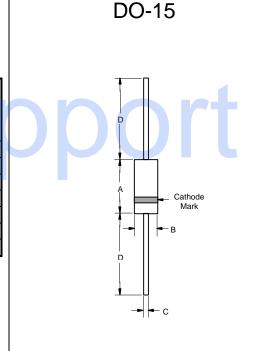
Microsemi	Device	Maximum	Maximum	Maximum
Catalog	Marking	Recurrent	RMS	DC
Number		Peak Reverse	Voltage	Blocking
		Voltage		Voltage
FR201GP	FR201GP	50V	35V	50V
FR202GP	FR202GP	100V	70V	100V
FR203GP	FR203GP	200V	140V	200V
FR204GP	FR204GP	400V	280V	400V
FR205GP	FR205GP	600V	420V	600V
FR206GP	FR206GP	800V	560V	800V
FR207GP	FR207GP	1000V	700V	1000V

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

nectrical characteristics @ 25 c offices offici wise specified					
Average Forward	$I_{F(AV)}$	2 A	$T_A = 55^{\circ}C$		
Current					
Peak Forward Surge	I <sub>FSM</sub>	60A	8.3ms, half sine		
Current					
Maximum			$I_{FM} = 2.0A;$		
Instantaneous	$V_{F}$	1.3V	$T_A = 25^{\circ}C$		
Forward Voltage					
Maximum DC					
Reverse Current At	$I_R$	5.0μΑ	$T_A = 25^{\circ}C$		
Rated DC Blocking		100μΑ	T <sub>A</sub> = 100°C		
Voltage		•			
Maximum Reverse					
Recovery Time					
FR201GP-204GP	$T_{rr}$	150ns	$I_F=0.5A, I_R=1.0A,$		
FR205GP		250ns	I <sub>rr</sub> =0.25A		
FR206GP-207GP		500ns			
Typical Junction	CJ	40pF	Measured at		
Capacitance			1.0MHz, V <sub>R</sub> =4.0V		

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

# 2 Amp Glass Passivated Fast Recovery Rectifier 50 to 1000 Volts



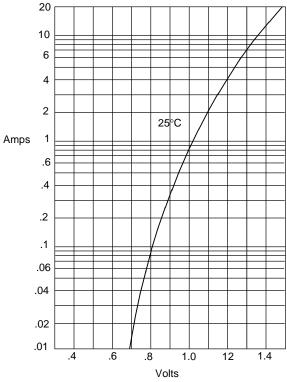
DIMENSIONS						
	INCHES		MM			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.230	.300	5.80	7.60		
В	.104	.140	2.60	3.60		
С	.026	.034	.70	.90		
D	1.000		25.40			

#### FR201GP thru FR207GP

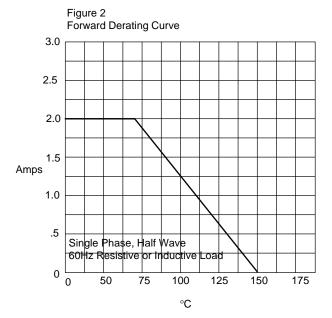


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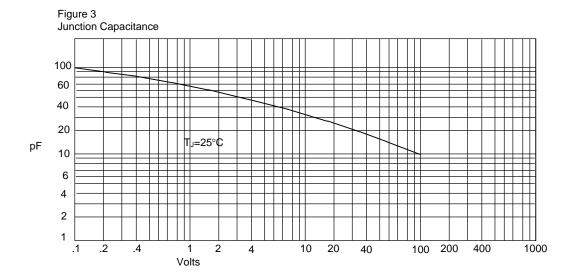
Figure 1 Typical Forward Characteristics



Instantaneous Forward Current - Amperesversus
Instantaneous Forward Voltage - Volts



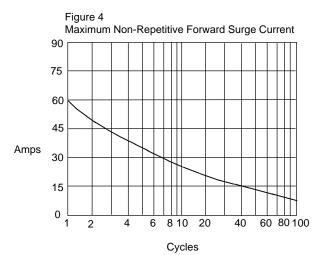
Average Forward Rectified Current - Amperes/ersus Ambient Temperature - $^{\circ}$ C



Junction Capacitance - pF*versus* Reverse Voltage - Volts

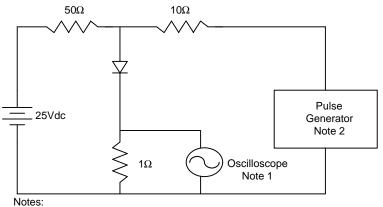
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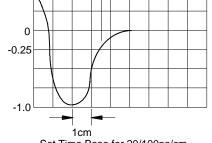




Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles

Figure 5 Reverse Recovery Time Characteristic And Test Circuit Diagram





+0.5A

Set Time Base for 20/100ns/cm

- 1. Rise Time = 7ns max.
- Input impedance = 1 megohm, 22pF
- 2. Rise Time = 10ns max.
- Source impedance = 50 ohms
- 3. Resistors are non-inductive



#### **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel: 4Kpcs/Reel
Part Number-BP	Bulk: 25Kpcs/Carton

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

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