



Micro Commercial Components

Micro Commercial Components  
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# FR201 THRU FR207

## 2 Amp Fast Recovery Rectifier 50 to 1000 Volts

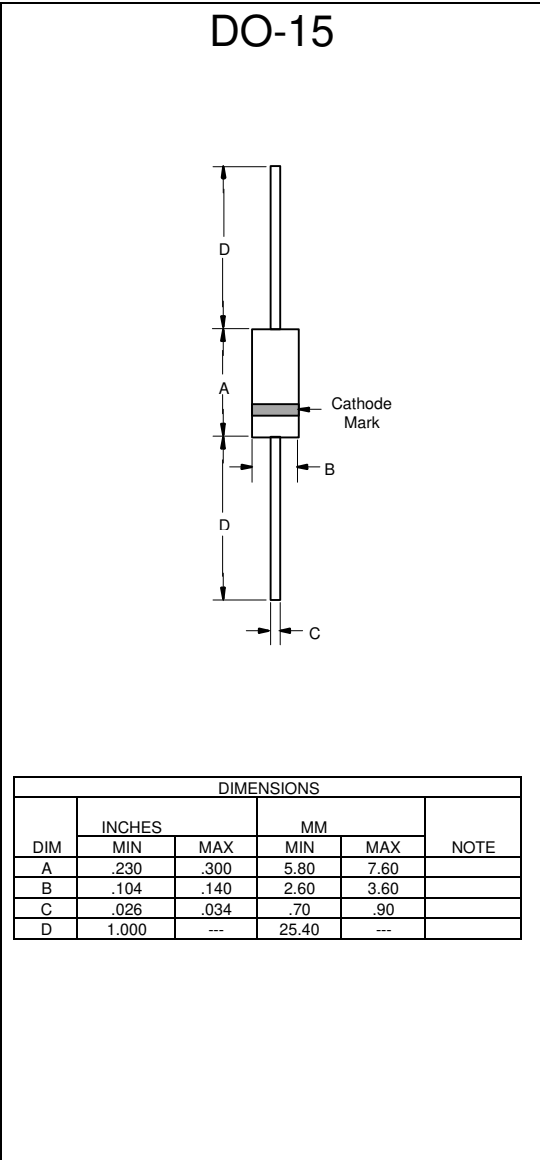
### Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- High Current Capability
- Fast Switching Speed For High Efficiency
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

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

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FR201	FR201	50V	35V	50V
FR202	FR202	100V	70V	100V
FR203	FR203	200V	140V	200V
FR204	FR204	400V	280V	400V
FR205	FR205	600V	420V	600V
FR206	FR206	800V	560V	800V
FR207	FR207	1000V	700V	1000V



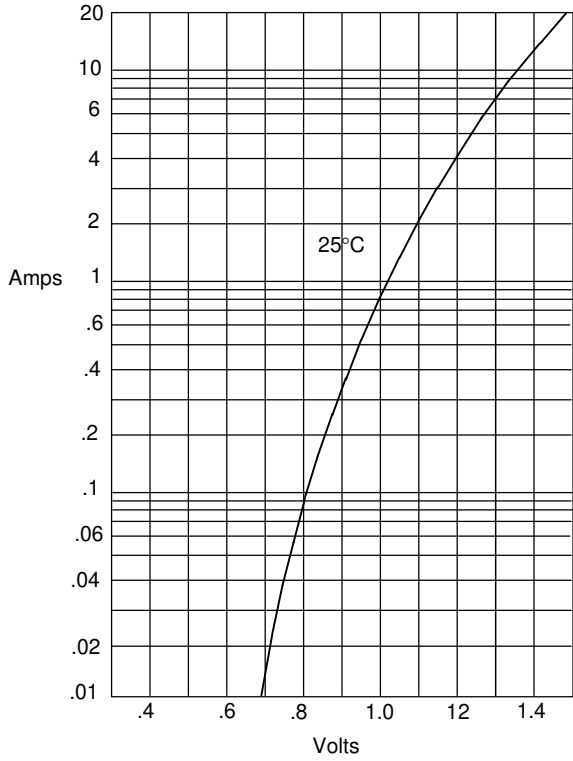
### Electrical Characteristics @25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	2 A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	60A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.3V	$I_{FM} = 2.0A;$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu\text{A}$ 100 $\mu\text{A}$	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
$I^2t$ Rating for fusing	$I^2t$	15A <sup>2</sup> S	$t < 8.3\text{ms}$
Maximum Reverse Recovery Time	$T_{rr}$	150ns 250ns 500ns	$I_F = 0.5A, I_R = 1.0A,$ $I_{rr} = 0.25A$
Typical Junction Capacitance	$C_J$	40pF	Measured at 1.0MHz, $V_R = 4.0V$

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

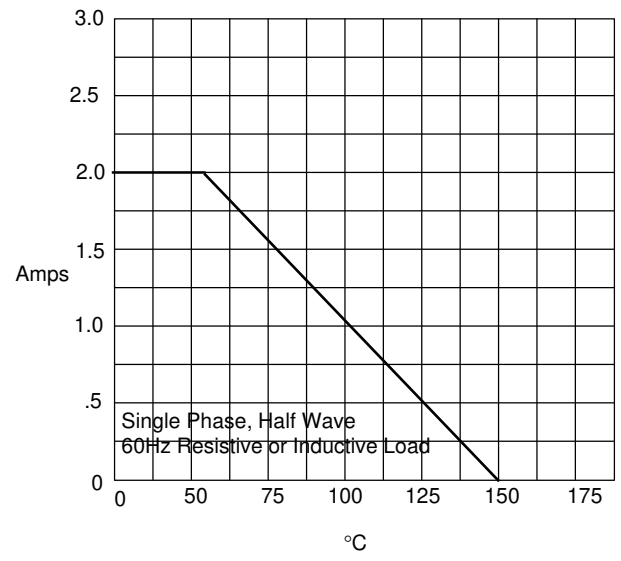
FR201 thru FR207

Figure 1  
Typical Forward Characteristics



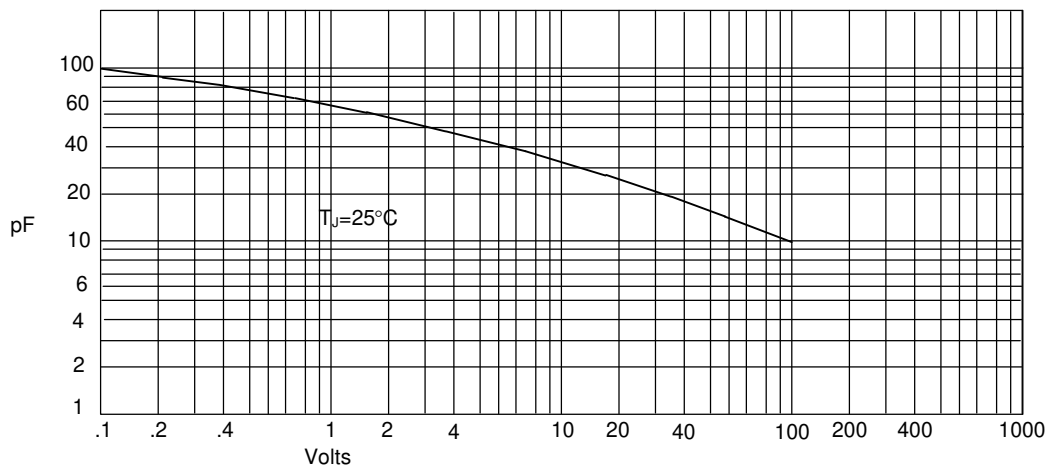
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



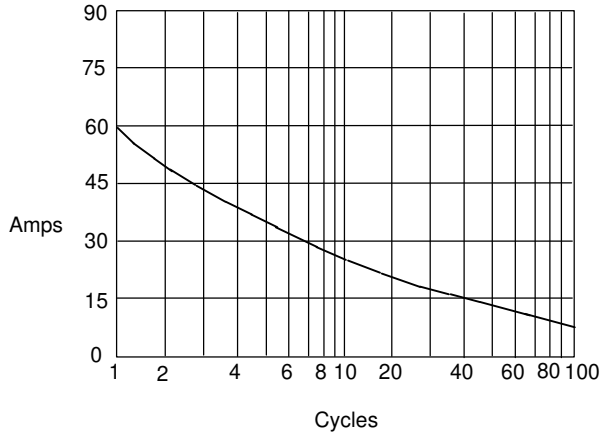
Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



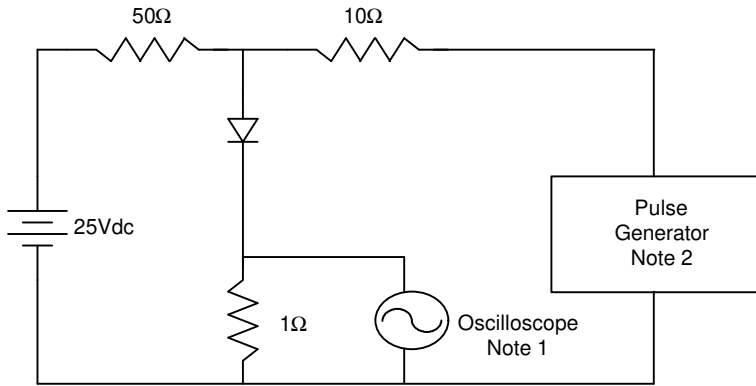
Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

Figure 4  
Maximum Non-Repetitive Forward Surge Current

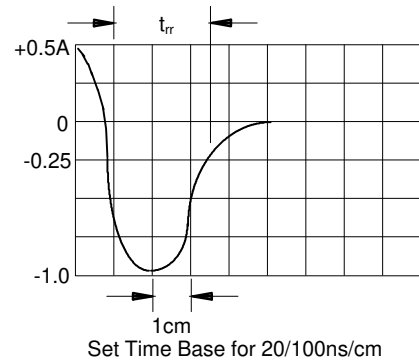


Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

Figure 5  
Reverse Recovery Time Characteristic And Test Circuit Diagram



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





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### 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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