

### Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Fast Switching Speed For High Efficiency
- Glass Passivated Junction
- Lead Free Finish/RoHS Compliant(Note 1)("P" Suffix Designates Compliant. See Ordering Information)

### Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 30 °C/W Junction to Ambient

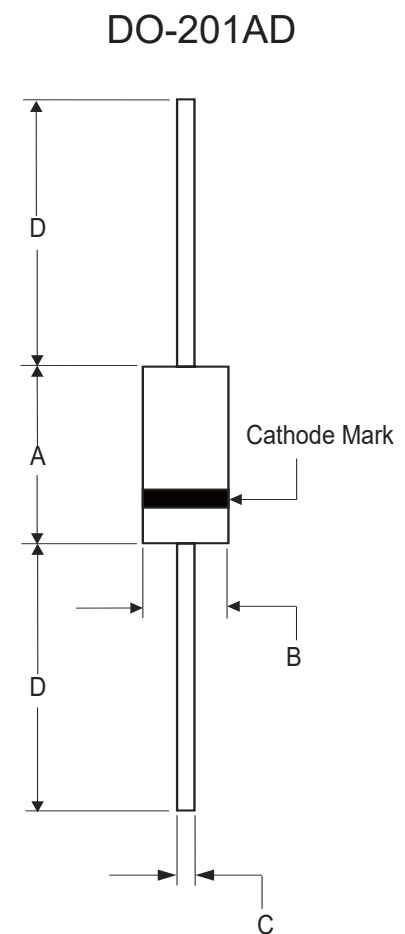
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FR301GP	FR301GP	50V	35V	50V
FR302GP	FR302GP	100V	70V	100V
FR303GP	FR303GP	200V	140V	200V
FR304GP	FR304GP	400V	280V	400V
FR305GP	FR305GP	600V	420V	600V
FR306GP	FR306GP	800V	560V	800V
FR307GP	FR307GP	1000V	700V	1000V

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

Average Forward Current	$I_{F(AV)}$	3.0A	$T_A=55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	1.30V	$I_{FM}=3.0A;$ $T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu$ A 100 $\mu$ A	$T_J=25^\circ\text{C};$ $T_J=55^\circ\text{C}$
Maximum Reverse Recovery Time FR301GP-304GP FR305GP FR306GP-307GP	$t_{rr}$	150ns 250ns 500ns	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A$
Typical Junction Capacitance	$C_J$	50pF	Measured at 1.0MHz $V_R=4.0V$

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

## 3.0 Amp Fast Recovery Rectifier 50 to 1000 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.287	0.374	7.30	9.50	
B	0.189	0.208	4.80	5.30	
C	0.048	0.052	1.20	1.30	
D	1.000	-----	25.40	-----	

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

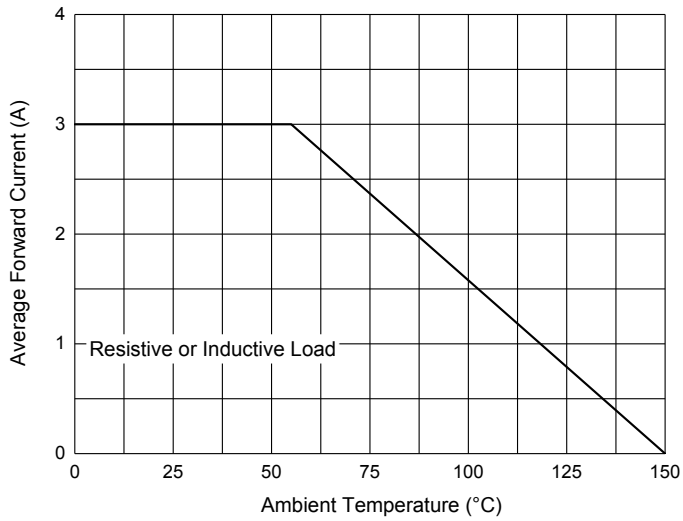


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

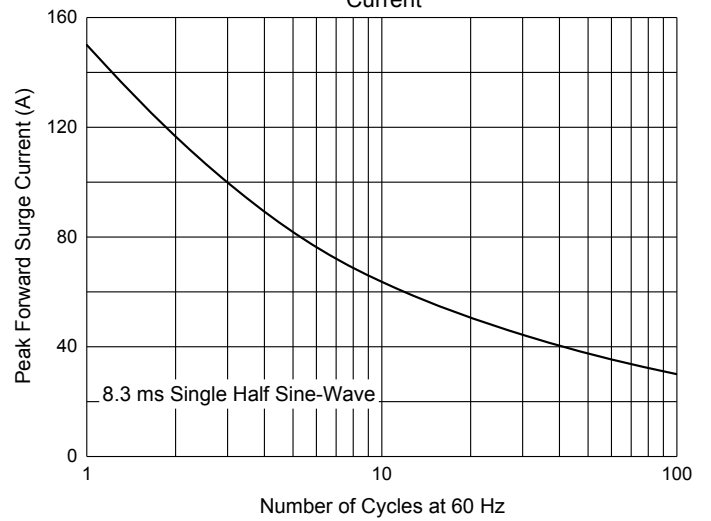


Fig. 3 - Typical Instantaneous Forward Characteristics

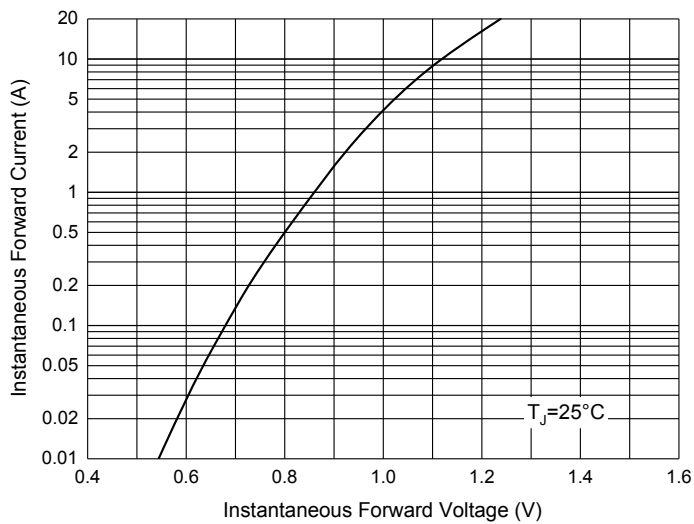
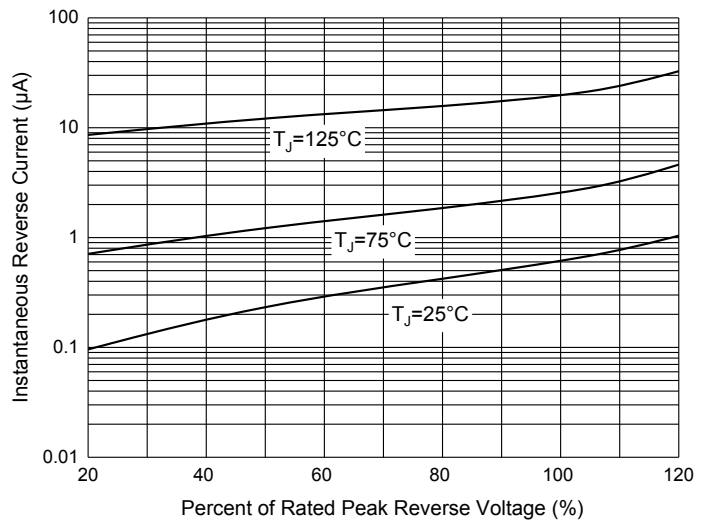


Fig. 4 - Typical Reverse Characteristics



## 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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