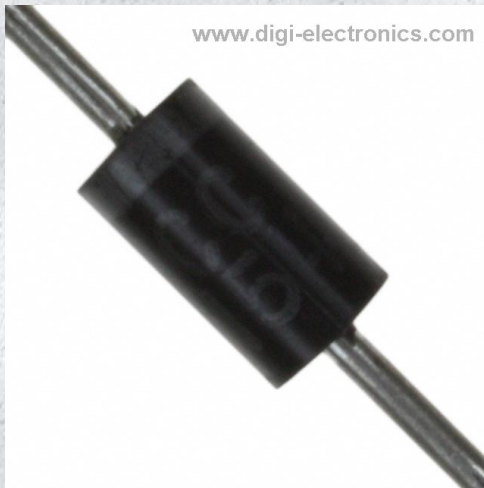


FR306GP-AP Datasheet



www.digi-electronics.com

<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	FR306GP-AP-DG
Manufacturer	Micro Commercial Co
Manufacturer Product Number	FR306GP-AP
Description	DIODE GEN PURP 800V 3A DO201AD
Detailed Description	Diode 800 V 3A Through Hole DO-201AD

This model FR306GP-AP is available at DiGi Electronics.

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Purchase and inquiry

Manufacturer Product Number:

FR306GP-AP

Series:

-

Technology:

Standard

Current - Average Rectified (Io):

3A

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Current - Reverse Leakage @ Vr:

5 μ A @ 800 V

Mounting Type:

Through Hole

Supplier Device Package:

DO-201AD

Base Product Number:

FR306

Manufacturer:

Micro Commercial Co

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

800 V

Voltage - Forward (Vf) (Max) @ If:

1.3 V @ 3 A

Reverse Recovery Time (trr):

500 ns

Capacitance @ Vr, F:

50pF @ 4V, 1MHz

Package / Case:

DO-201AD, Axial

Operating Temperature - Junction:

-55°C ~ 150°C

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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

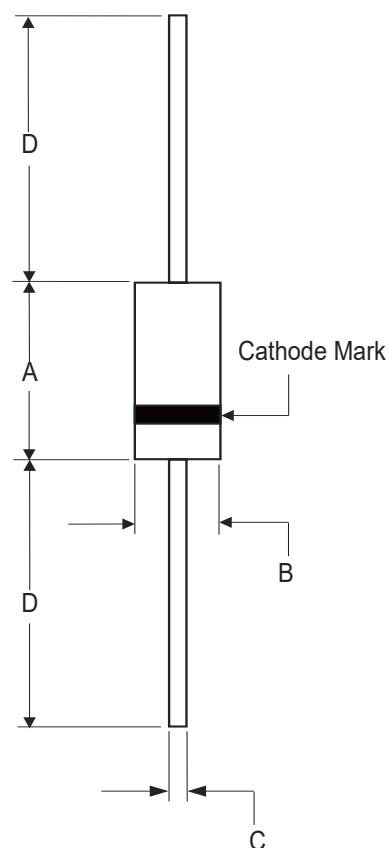
Electrical Characteristics @ 25°C Unless Otherwise Specified

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 μ A 100 μ 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

DO-201AD



DIMENSIONS

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

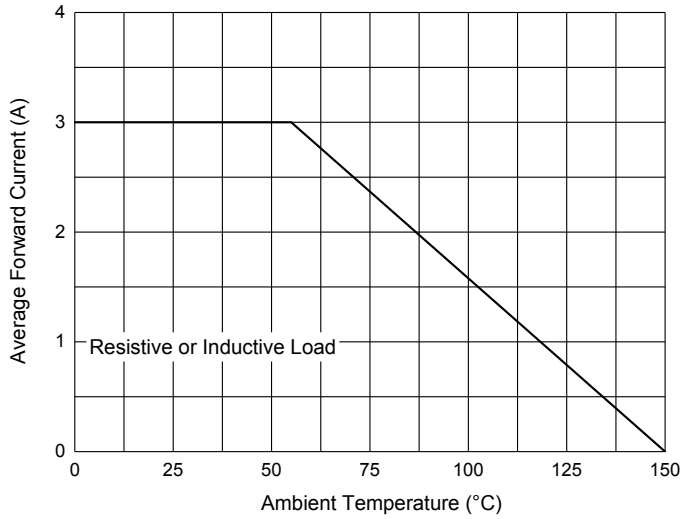


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

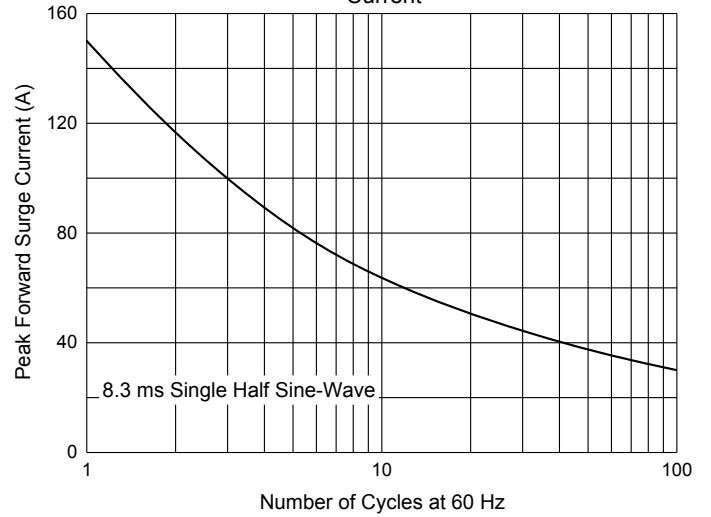


Fig. 3 - Typical Instantaneous Forward Characteristics

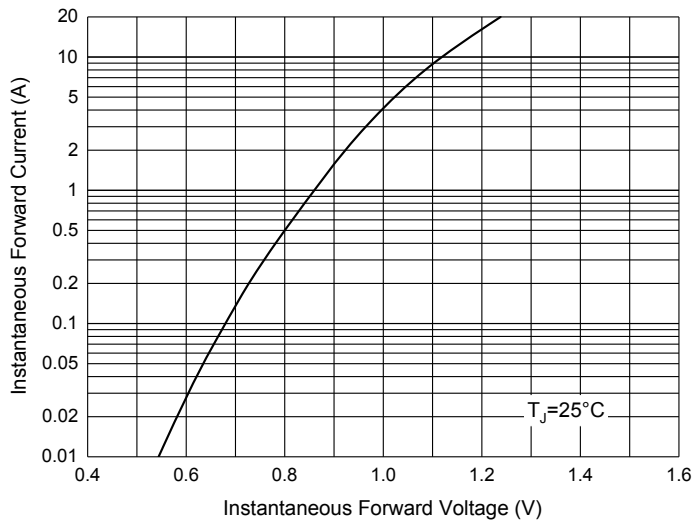
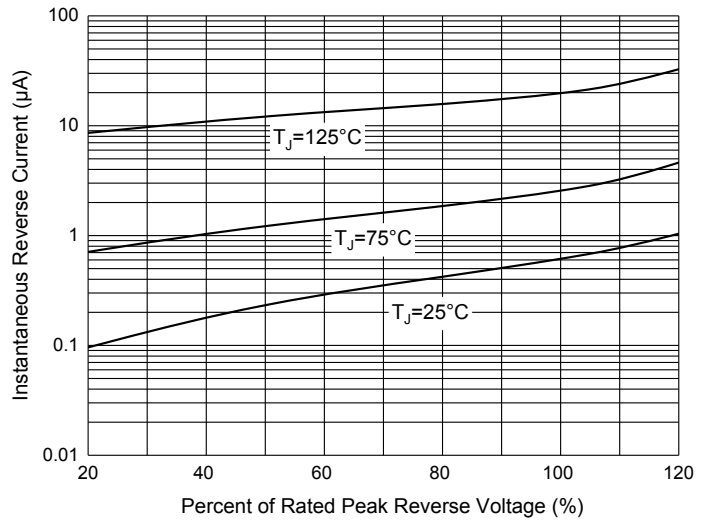


Fig. 4 - Typical Reverse Characteristics



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:500pcs/Box,12Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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