

Features

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

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		UF4001GP	UF4002GP	UF4003GP	UF4004GP	UF4005GP	UF4006GP	UF4007GP	
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	30							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		60							
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	i^2t	3.735							A ² s

Marking code

Part Number	Marking Code
UF4001GP	UF4001GP
UF4002GP	UF4002GP
UF4003GP	UF4003GP
UF4004GP	UF4004GP
UF4005GP	UF4005GP
UF4006GP	UF4006GP
UF4007GP	UF4007GP

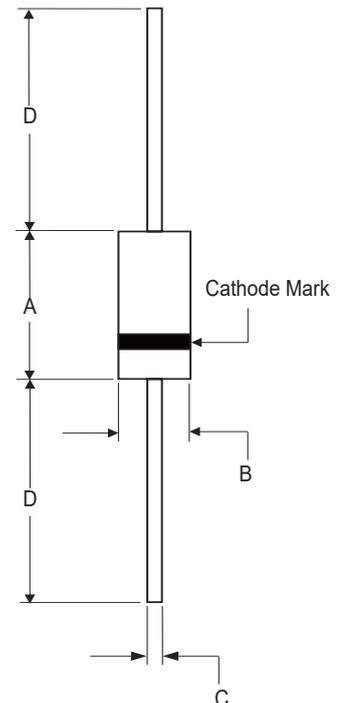
Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	 XXXXX: Marking Code	
2	Anode		

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

1 Amp Ultra Fast Recovery Rectifier 50 to 1000 Volts

DO-41



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.160	0.205	4.10	5.20	
B	0.080	0.107	2.00	2.70	Φ
C	0.028	0.035	0.71	0.90	Φ
D	1.000	-----	25.40	-----	

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		15		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		60		°C/W

Note:

1. Thermal Resistance from Junction to Ambient at 0.375" (9.5 mm) Lead Length.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage UF4001GP~UF4003GP UF4004GP UF4005GP~UF4007GP	V_F	$I_F=1A; T_J=25^\circ C$			1.0 1.3 1.7	V
Reverse Current	I_R	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 100	μA
Reverse Recovery Time UF4001GP~UF4004GP UF4005GP~UF4007GP	t_{rr}	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A; T_J=25^\circ C$			50 75	ns
Junction Capacitance UF4001GP~UF4003GP UF4004GP UF4005GP~UF4007GP	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$		18 12 8		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

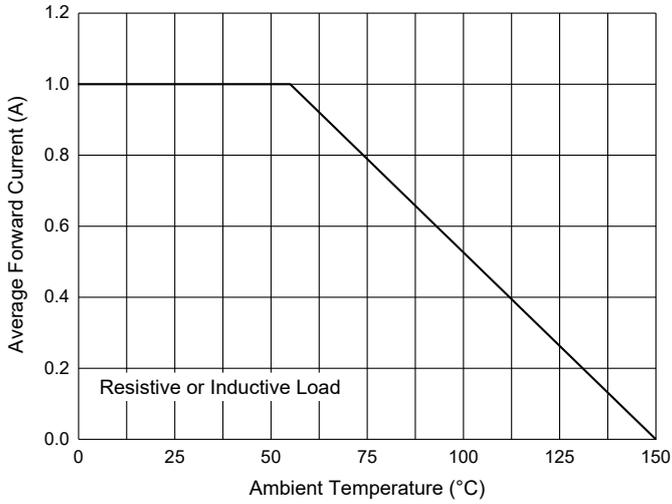


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

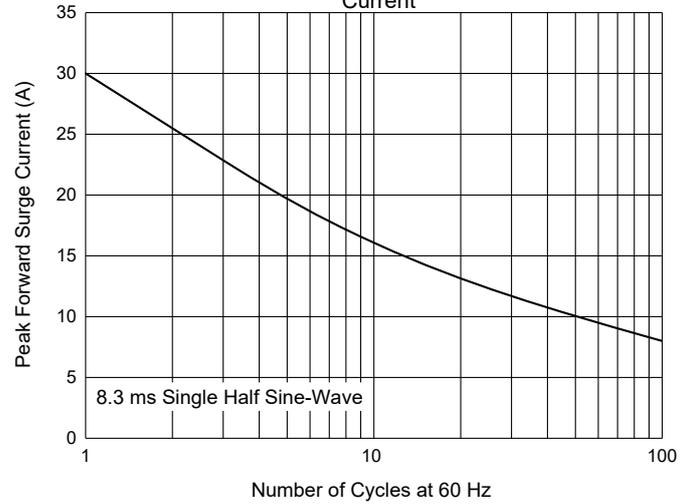


Fig. 3 - Typical Forward Characteristics

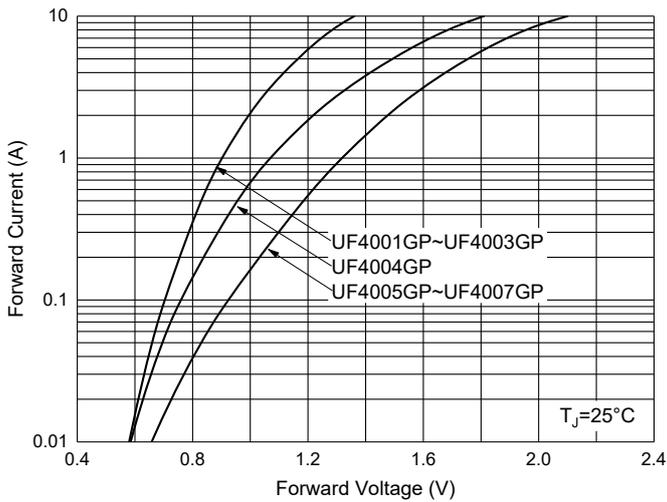


Fig. 4 - Typical Reverse Leakage Characteristics

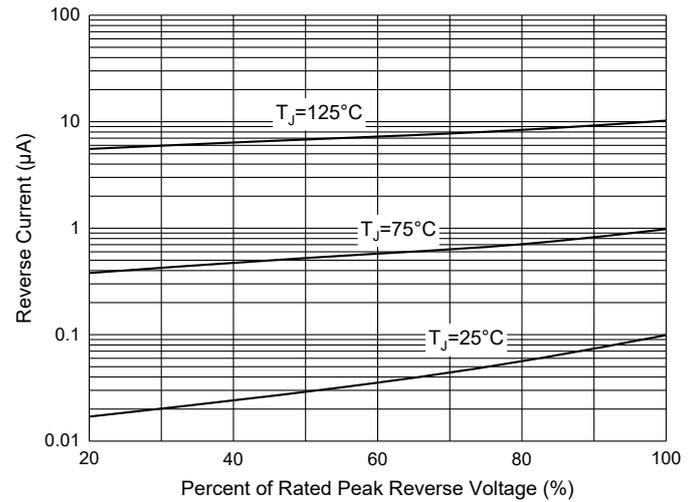
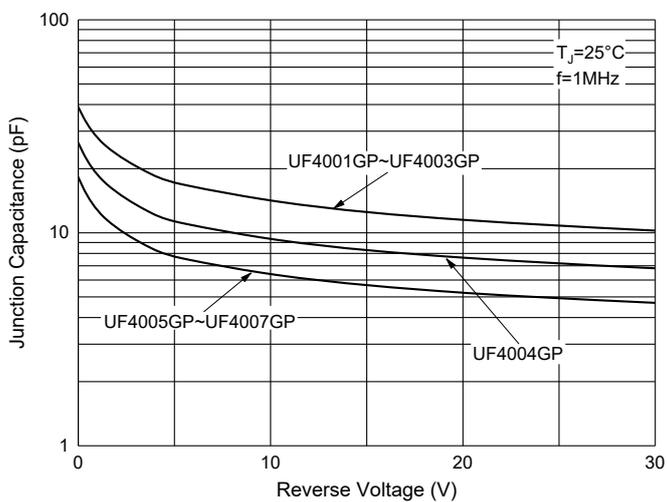


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:5Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk:1Kpcs/Box,50Kpcs/Carton

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

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