

UF4001G THRU UF4007G

GLASS PASSIVATED ULTRA FAST RECOVERY RECTIFIERS

Reverse Voltage - 50 to 1000 V

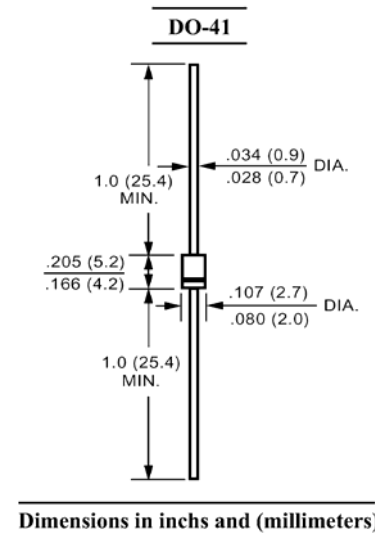
Forward Current - 1 A

Features

- Ultra fast switching for high efficiency
- Glass passivated junction
- Low reverse leakage
- High forward surge current capability

Mechanical Data

- **Case:** JEDEC DO-41 molded plastic body
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any



Absolute Maximum Ratings and Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

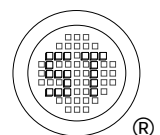
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	Symbols	UF4001G	UF4002G	UF4003G	UF4004G	UF4005G	UF4006G	UF4007G	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1							A
Peak Forward Surge Current, 8.3 ms Single Half-sine -wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V _F	1			1.3	1.7			V
Maximum Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a = 125 °C	I _R	2.5 100							μA
Maximum Reverse Recovery Time ¹⁾	t _{rr}	50				75			ns
Typical Junction Capacitance ²⁾	C _J	20				15			pF
Typical Thermal Resistance ³⁾	R _{θJA}	60							°C/W
Operating and Storage Temperature Range	T _J , T _{stg}	- 55 to +150							°C

¹⁾ Reverse recovery conditions $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $t_{rr} = 0.25\text{ A}$.

²⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C.

³⁾ Thermal resistance from junction to ambient lead at 0.375" (9.5mm) lead length, P.C.B mounted.



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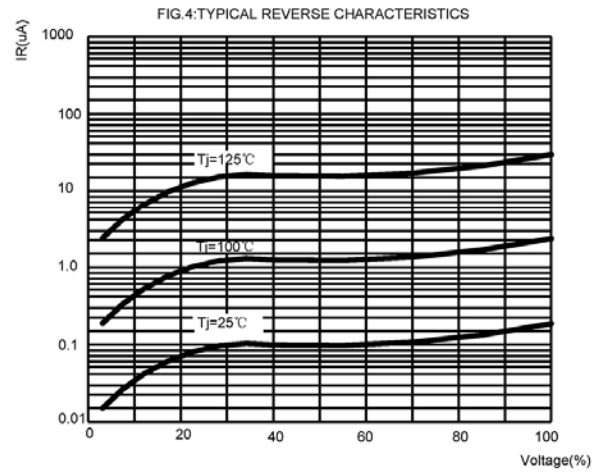
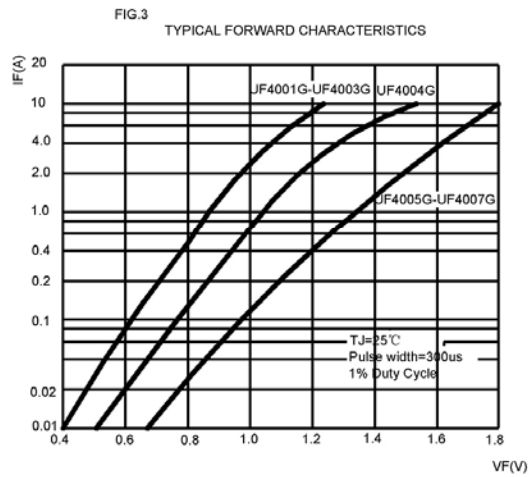
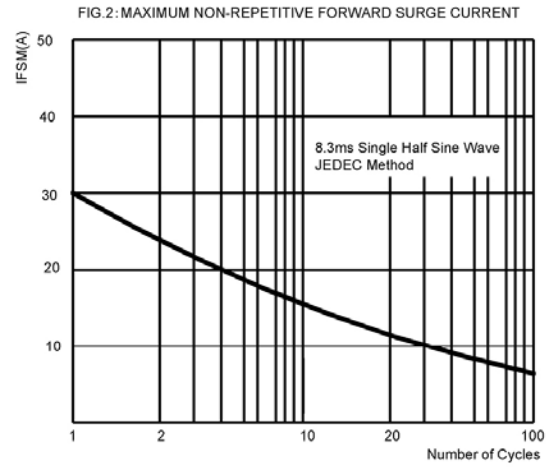
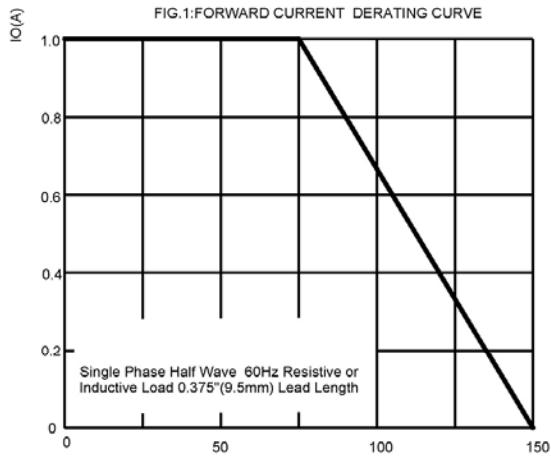


FIG5

Diagram of circuit and Testing wave form of reverse recovery time

