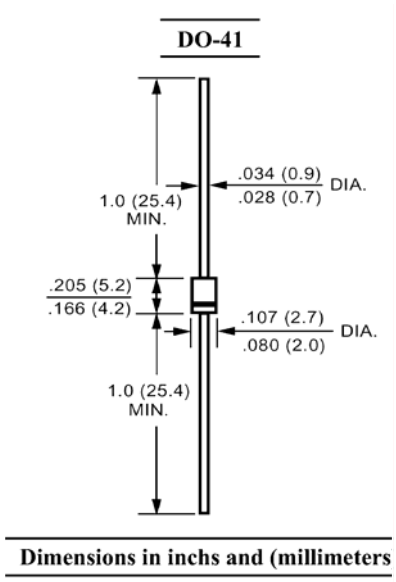
UF4001G THRU UF4007G

GLASS PASSIVATED ULTRA FAST RECOVERY RECTIFIERS
Reverse Voltage – 50 to 1000 V
Forward Current – 1 A

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Ultra fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability



Dimensions in inchs and (millimeters

Mechanical Data

- **Case:** JEDEC DO-41 molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- **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 0.375"(9.5mm) Lead Length at T_a = 55 °C	$I_{F(AV)}$	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				1.7			V
Maximum Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a = 100 °C	I_R	10 50							μA
Maximum Reverse Recovery Time[1]	t_{rr}	50				75			ns
Typical Junction Capacitance [2]	C_J	17							pF
Typical Thermal Resistance [3]	$R_{\theta JA}$	50							°C/W
Operating and Storage Temperature Range	T_j , T_{stg}	- 55 to +150							°C

[1] Reverse recovery conditions I_F = 0.5 A, I_R = 1 A, I_{rr} = 0.25 A.
[2] Measured at 1 MHz and applied reverse voltage of 4 V D.C.
[3] Thermal resistance from juntcion to ambient lead at 0.375"(9.5mm) lead length , P.C.B mounted.

FIG. 1- FORWARD CURRENT DERATING CURVE

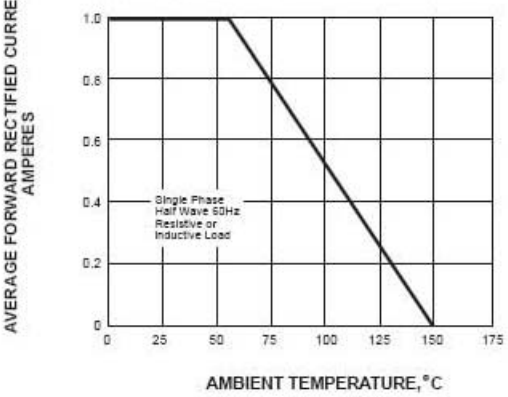


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

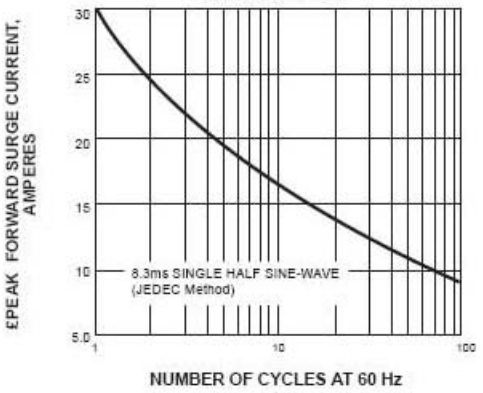


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

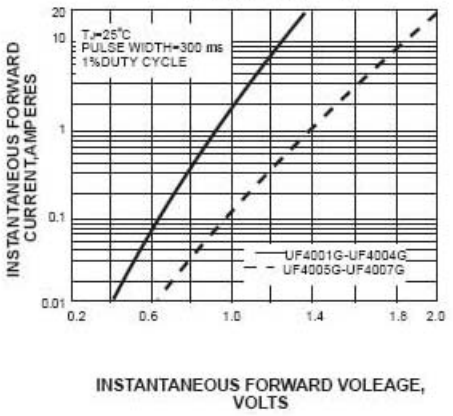


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

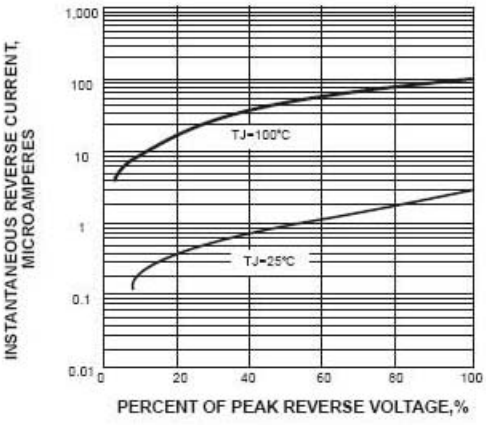


FIG. 5-TYPICAL JUNCTION CAPACITANCE

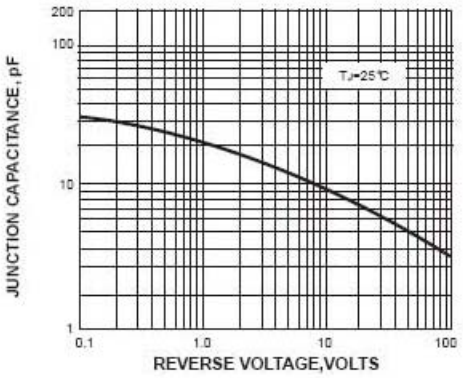


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE