

## Features

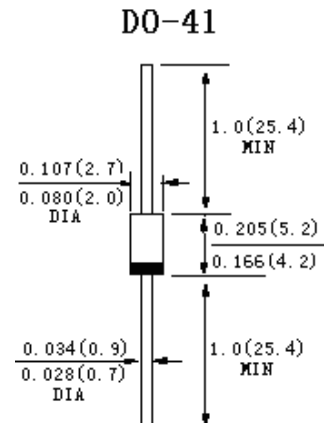
- Low reverse leakage
- High forward surge capability
- High reliability
- High temperature soldering guaranteed:260°C/10seconds, 9.5mm lead length
- Lead and body according with RoHS standard

## Mechanical Data

**Case:** DO-41 Molded plastic

**Epoxy:** UL 94V-0 rate flame retardant

**Lead:** Pure tin plated, lead free



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60 Hz, resistive or inductive load

For capacitive load, derate current by 20%

TYPE NUMBER	Symbols	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4005	UF 4007	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 9.5mm lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current,8.3ms single half-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.0		1.3		1.7		V	
Maximum reverse recovery time( Note1)	$T_{rr}$	50				75			nS
Maximum DC reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	$I_{R1}$							$\mu\text{A}$
	$T_A=100^\circ\text{C}$	$I_{R2}$							$\mu\text{A}$
Operating junction temperature range	$T_J$	-55to+150							$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55to+150							$^\circ\text{C}$

**Note:** 1. Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $IRR=0.25\text{A}$ .

## Characteristic Curves

Fig. 1 – Forward Current Derating Curve

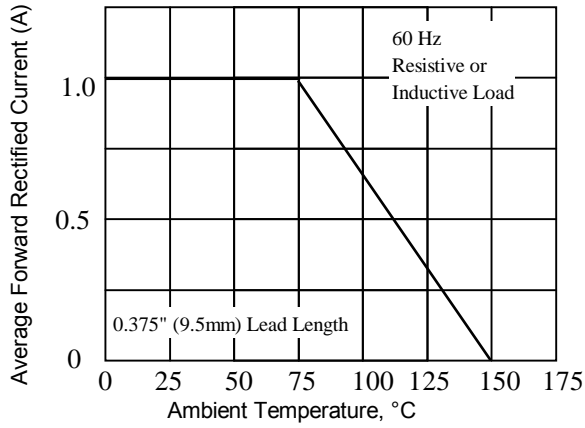


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

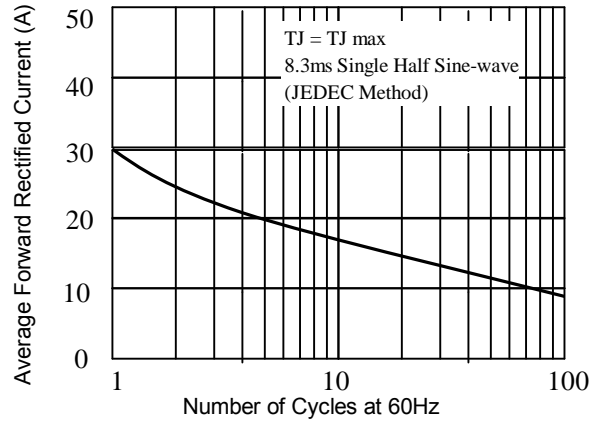


Fig 3. – Typical Instantaneous Forward Characteristics

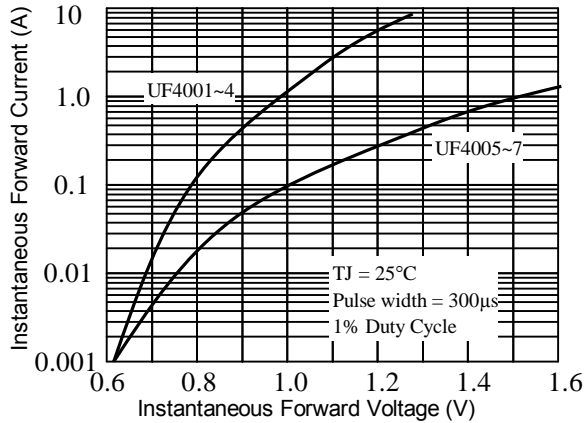


Fig 4. – Typical Reverse Characteristics

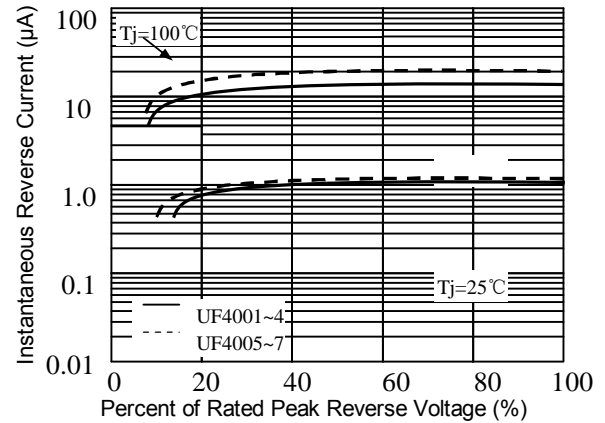


Fig 5. – Typical Junction Capacitance

