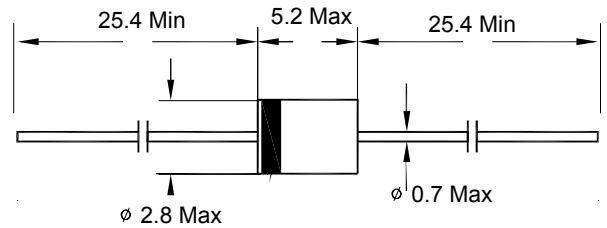


FEATURES

- Low coat construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375”(9.5mm)lead length at
5 lbs(2.3kg) tension



DO-41 Dimensions in millimeters

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.33 grams (approx.)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

Parameter	Symbol	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	Unit
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 $T_A = 25^\circ C$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on, rated load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.0			1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$T_A = 25^\circ C$	10.0							μA
	$T_A = 100^\circ C$	50.0							
Maximum Reverse Recovery Time $T_A = 25^\circ C$	t_{rr}	50			70			nS	
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60							$^\circ C / W$
Operating Junction Temperature Range	T_J	-50 to +150							$^\circ C$
Storage Temperature Range	T_{STG}	-50 to +150							$^\circ C$

Note: 1.Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.

2.Thermal Resistance from junction to terminal 6.0mm2 copper pads to each terminal.

Typical Characteristics

FIG. 1 – FORWARD CURRENT DERATING CURVE

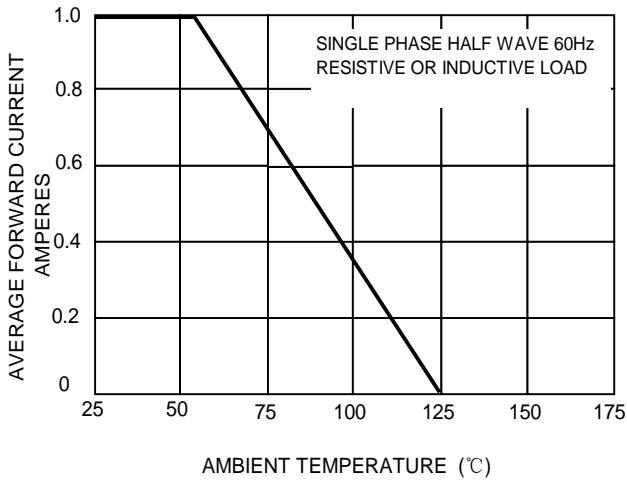


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

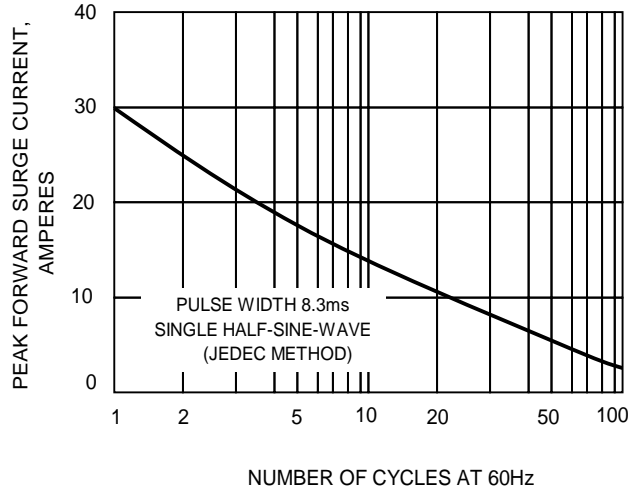


FIG.3 – TYPICAL JUNCTION CAPACITANCE

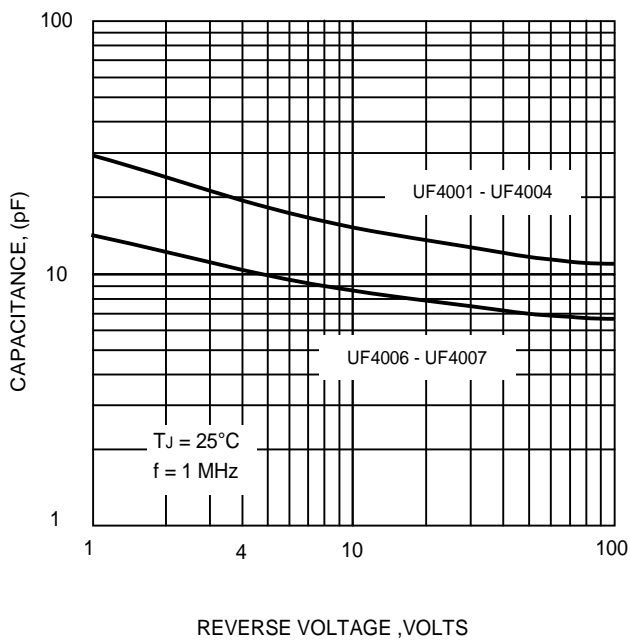


FIG.4-TYPICAL FORWARD CHARACTERISTICS

