UF4001 THRU UF4007

1.0 AMP SILICON RECTIFIERS

GOODWORK

FEATURES

* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.34 grams

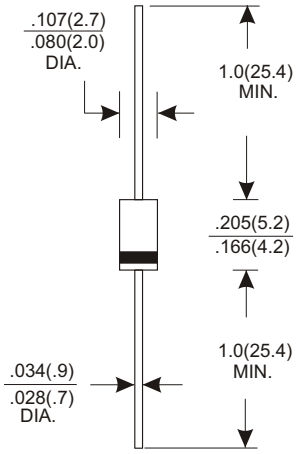
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

1.0 Ampere

DO-41



Dimensions in inches and (millimeters)

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	Symbols	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	Units
Maximum Recurrent 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	$I_{(AV)}$	1							A
Peak Forward Surge Current, 8.3 ms Single Half-sine -wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at 1 A DC	V_F	1			1.3	1.7			V
Maximum Reverse Current T_A = 25 °C at Rated DC Blocking Voltage T_A = 100 °C	I_R	5 500							μA
Typical Junction Capacitance [1]	C_J	17							pF
Typical Thermal Resistance [2]	$R_{\theta JA}$	60							°C/W
Maximum Reverse Recovery Time [3]	t_{rr}	50				75			ns
Operating and Storage Temperature Range	T_J ,T_S	-55 to +150							°C

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

RATING AND CHARACTERISTIC CURVES (UF4001 THRU UF4007)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

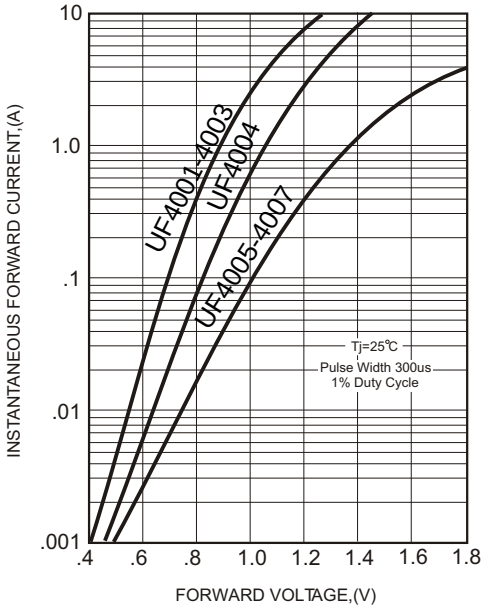


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

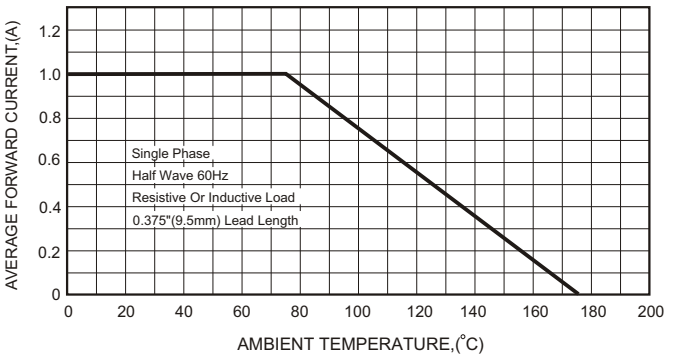


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

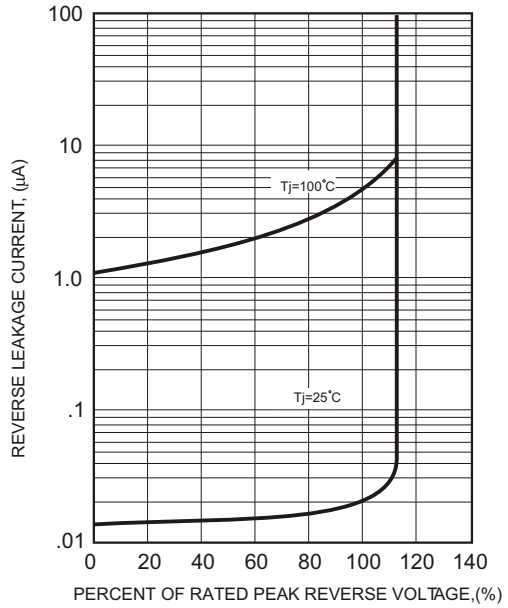


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

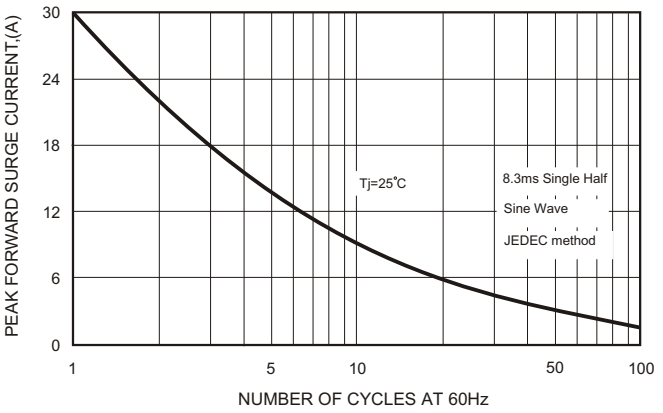


FIG.5-TYPICAL JUNCTION CAPACITANCE