

UF5401 THRU UF5408

HIGH EFFICIENCY RECTIFIERS

REVERSE VOLTAGE 50 to 600 Volts FORWARD CURRENT 3.0 Ampere

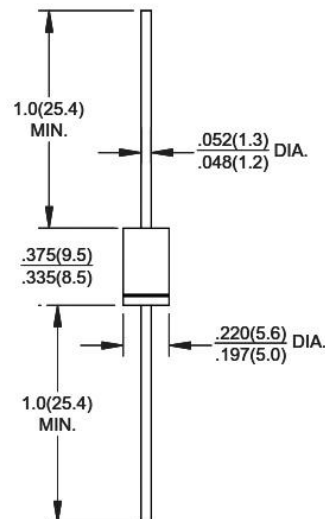
FEATURES

- ◆ Low power loss, high efficiency
 - ◆ Low forward voltage drop
 - ◆ Low leakage current
 - ◆ High forward surge capability
 - ◆ High reliability
 - ◆ High temperature soldering guaranteed
- 260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs(2.3kg) tension

Mechanical Data

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL94V-0 rate flame retardant
- ◆ Polarity: Color band denotes cathode end
- ◆ Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting position: Any

DO-201AD (DO-27)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

PARAMETER	SYMBOL	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5406	UF 5407	UF 5408	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	VOLTS
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	VOLTS
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	VOLTS
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	3.0								Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150								Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.0		1.3		1.7			VOLTS	
Maximum DC Reverse Current at Rated DC blocking voltage	I_R	$T_A=25^\circ\text{C}$								uA
		$T_A=100^\circ\text{C}$								
Maximum reverse recovery time (NOTE 1)	t_{rr}	50				70			ns	
Typical Junction Capacitance (Note 2)	C_J	70				50			pF	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150								°C

Note: 1. Reverse Recovery Test Conditions: $I_f=0.5A, I_r=1.0A, I_{rr}=0.25A$.

2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

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RATING AND CHARACTERISTIC CURVES UF5401 THRU UF5408

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

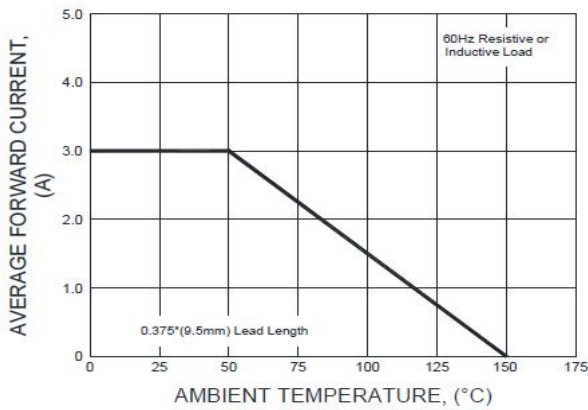


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

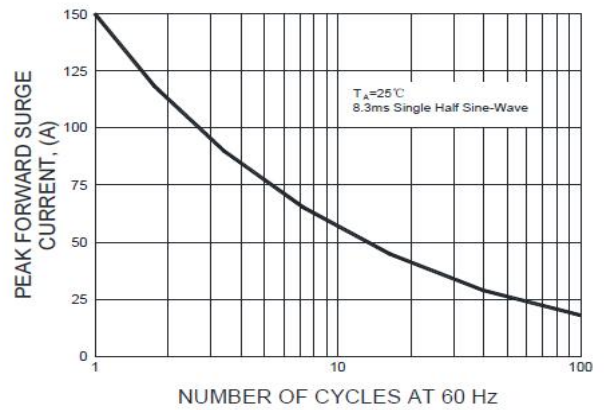


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

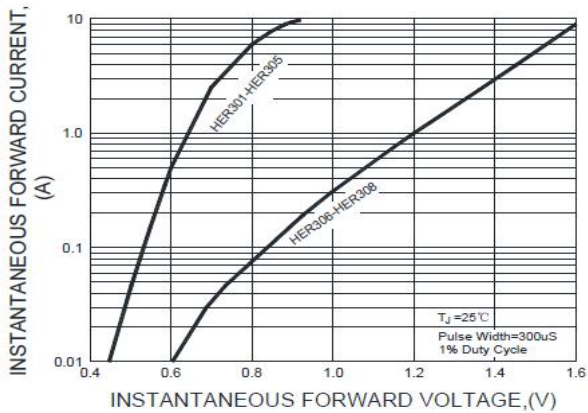


FIG.3-TYPICAL REVERSE CHARACTERISTICS

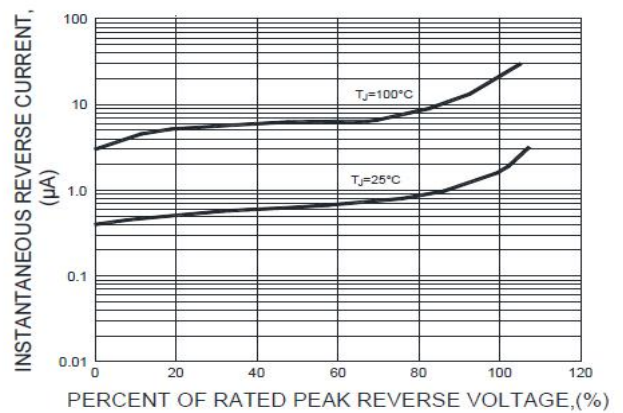


FIG.5-TYPICAL JUNCTION CAPACITANCE

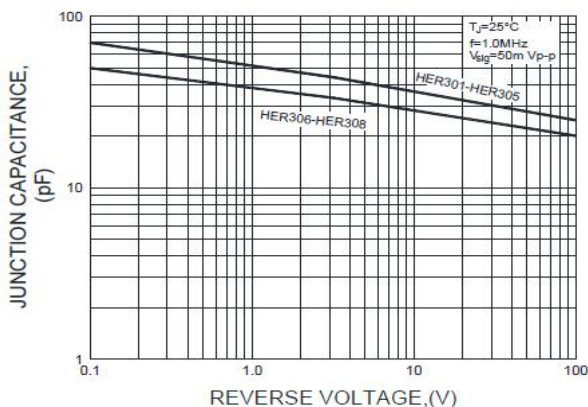
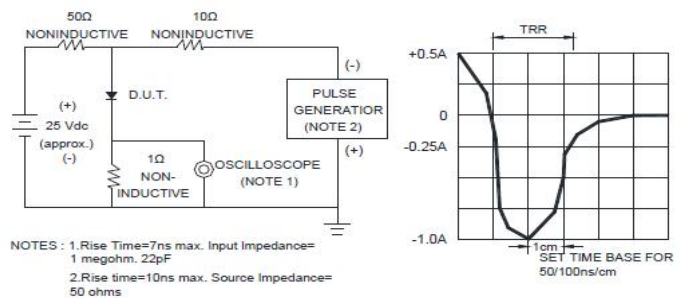


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.