

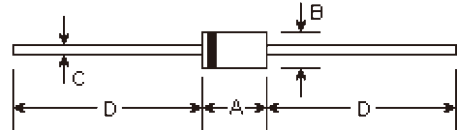


**Glass Passivated High Efficiency Rectifiers**  
Reverse Voltage 50V~1000 Volts, Forward Current 3.0 Ampers

**Features**

- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ Glass passivated chip junction
- ◆ Low cost
- ◆ Ultrafast recovery time for high efficiency
- ◆ Low forward voltage, high current capability
- ◆ Low leakage
- ◆ High surge capability
- ◆ High temperature soldering guaranteed:  
250°C, 0.375" (9.5mm) lead length for 10 seconds,  
5 lbs. (2.3kg) tension

**DO-201AD**



**Mechanical Data**

- ◆ Case: JEDEC DO-201AD molded plastic body over passivated chip
- ◆ Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any
- ◆ Weight: 0.04 ounce, 1.1 grams

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.283	0.374	7.20	9.50	
B	0.189	0.208	4.80	5.30	φ
C	0.048	0.051	1.20	1.30	φ
D	1.000	-	25.40	-	

**Maximum Ratings and Electrical Characteristics**

Ratings 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	Symbols	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum average forward rectified current, 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	3.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A=55^\circ\text{C}$	$I_{FSM}$	150.0									Amps
Maximum instantaneous forward voltage at 3.0A (Note 2)	$V_F$	1.0				1.7				Volts	
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ\text{C}$ @ $T_A=100^\circ\text{C}$	$I_R$	10				200				μA	
Maximum reverse recovery time at $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_T=0.25\text{A}$ $T_J=25^\circ\text{C}$	$t_{rr}$	50				75				nS	
Typical junction capacitance at 4.0V, 1MHz	$C_J$	45				36				pF	
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	20				8.5				°C/W	
Operating junction temperature range	$T_J$	-55 to +150									°C
Storage temperature range	$T_{STG}$	-55 to +150									°C

- Notes**
1. Thermal resistance from junction to lead and from junction to ambient with 0.375" (9.5mm) lead length, both leads attached to heatsink
  2. Pulse test: 300us pulse width, 1% duty cycle



RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

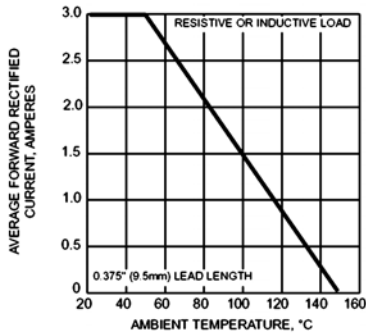


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

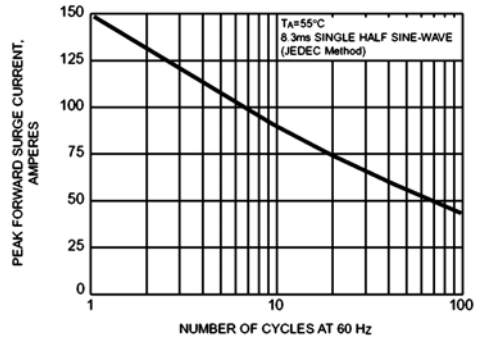


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

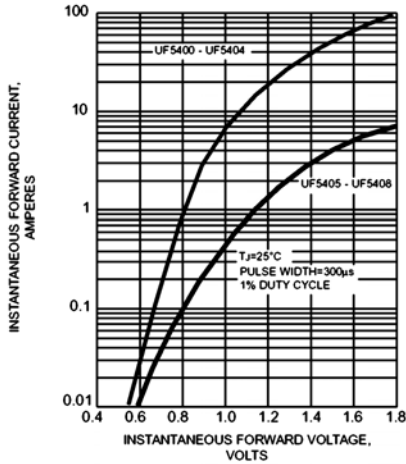


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

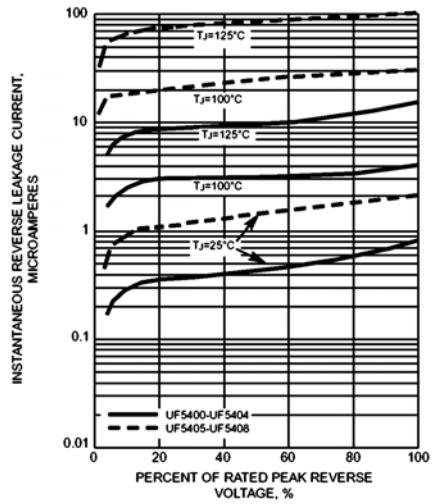


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

