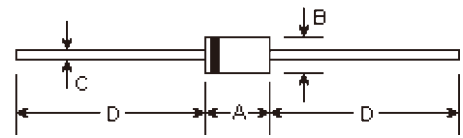
Glass Passivated High Efficiency Rectifiers
Reverse Voltage 50V~1000 Volts, Forward Current 3.0 Ampers

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

DIMENSIONS					
DIM	inches		mm		Note
	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℃ 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°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°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 @ T_A=25°C	I_R	10									uA
at rated DC blocking voltage @ T_A=100°C		75					200				
Maximum reverse recovery time T_J=25°C at I_F= 0.5A, I_R= 1.0A, I_{rr}= 0.25A	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

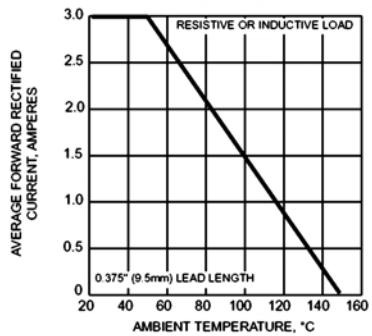


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

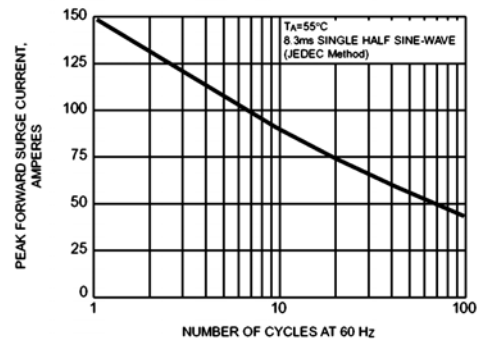


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

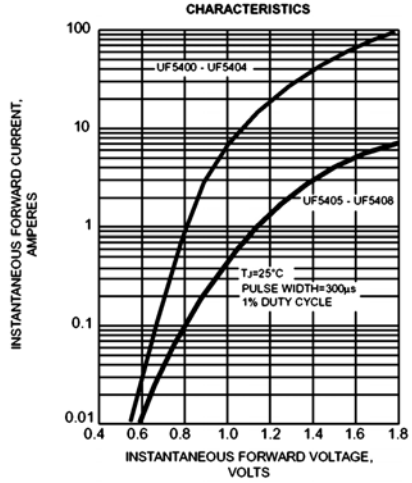


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

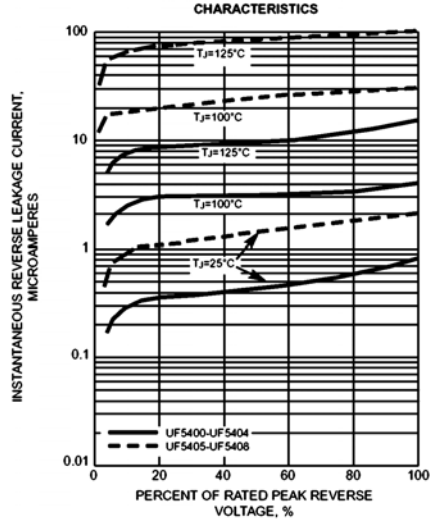


FIG. 5 - TYPICAL JUNCTION CAPACITANCE