

Glass Passivated High Efficient Rectifier
DO-41(DO-204AL)

Features

- ROHS compliant
- Glass passivated chip
- High forward surge capability
- Meet MSL level 1, per J-STD-020
LF maximum peak of 250 °C
- Solder dip 260 °C / 40S
- Component in accordance to ROHS 2002/95/EC and WEEE 2002/96/WC
- UL recognition, file number E342874


Primary characteristics

$I_{F(AV)}$	1A
V_{RRM}	50V to 1000V
I_{FSM}	30A
I_{RM}	10uA
V_{FM} at $I_F=1A$	1/1.7V
T_J max.	150 °C

Applications

Ideal for ac-to-dc bridge full wave rectification such as SMPS, home appliances, office equipment, industrial automation applications

Mechanical data

- DO-41(DO-204AL)
- Epoxy meets UL 94 V-0 flammability rating
- Terminals: Tin plated leads.
- Polarity: As marked.
- Mounting Torque:10cm·kg(8.8 inches·lbs)max.
- Recommended Torque:5.7 cm·kg(5 inches·lbs)

Maximum rating (Ta=25°C unless otherwise noted)

Parameter	Sym	DO-41(DO-204AL)							Unit
		UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	
Max. repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Max. RMS reverse voltage	V_{RMS}	35	70	140	280	420	560	700	V
Max. DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Max. average forward current	$I_{F(AV)}$	1							A
Non-repetitive peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	30							A
Max. instantaneous forward voltage drop per diode	V_{FM}	1			1.7				V
Max. instantaneous reverse current at rated DC blocking voltage	I_{RM}	10							μA
		50							
Operating junction temperature	T_J	-55 ~ +150							°C
Storage temperature	T_{STG}	-55 ~ +150							°C
Maximum reverse recovery time (Note1)	t_{rr}	50				75			nS
Typical thermal resistance (Note2)	R_{J-A}	60							°C/W
	R_{J-L}	15							

Notes:

1 Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $IRR=0.25A$

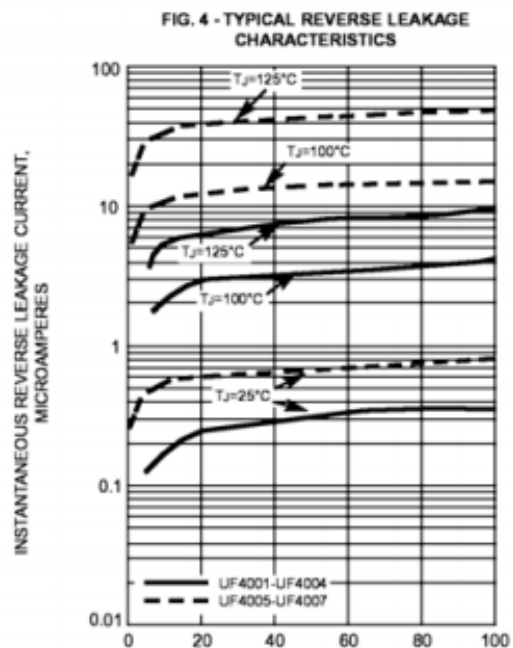
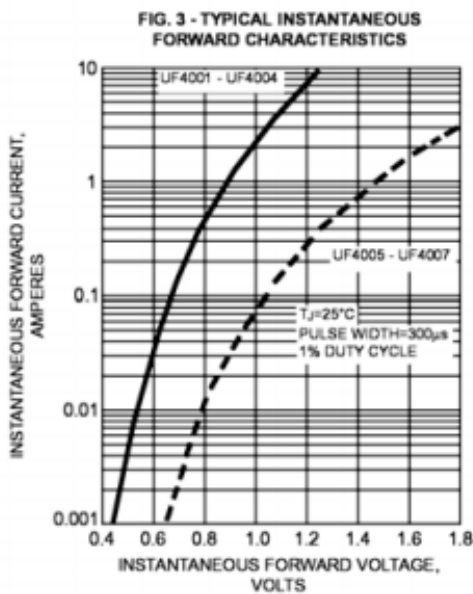
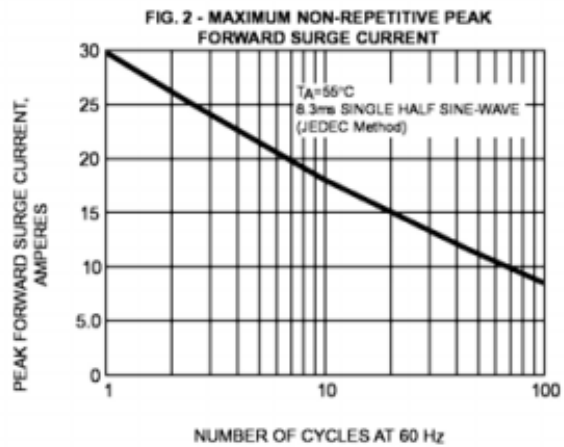
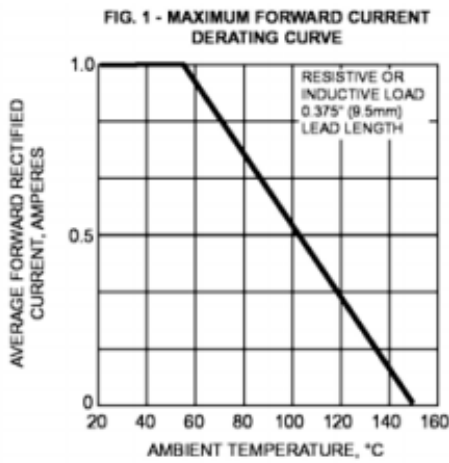
2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length



Ordering information (Example)

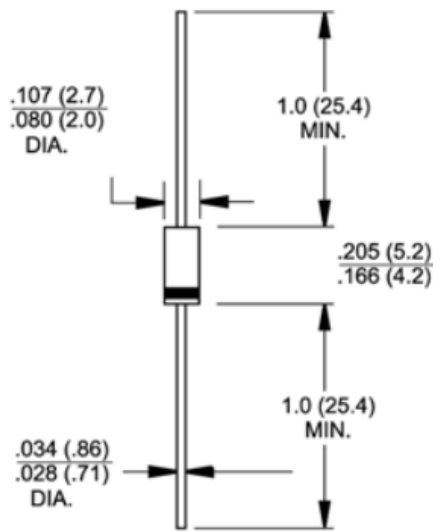
PREFERRED	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
UF4007				

Typical characteristics





Package outline dimensions



Dimensions in inches and (millimeters)

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