



UF601G THRU UF607G

Glass Passivated Ultra Fast Recovery Rectifier

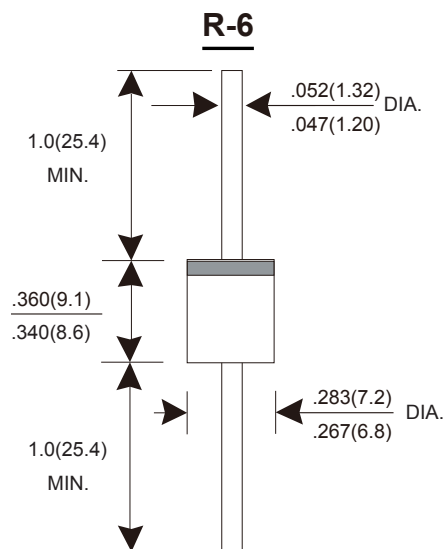
Features

- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Mechanical Data

- * Case: Molded plastic, R-6
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-202, method 208
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

Voltage Range 50 to 1000 V
Current 6.0 Ampere



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 601G	UF 602G	UF 603G	UF 604G	UF 605G	UF 606G	UF 607G	UNIT	
Maximum repetitive 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 @ $T_A=50^\circ\text{C}$	$I_{F(AV)}$	6.0							A	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150							A	
Maximum instantaneous forward voltage @ $I_F=6.0\text{A}$	V_F	1.0		1.3		1.7			V	
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	I_R	10 200							μA	
Maximum reverse recovery time (Note 1)	t_{rr}	50				75				ns
Typical junction capacitance (Note 2)	C_J	80				65				pF
Typical thermal resistance from junction to ambient (Note 3)	$R_{\theta JA}$	37							$^\circ\text{C}/\text{W}$	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

NOTES : (1) Reverse recovery test conditions $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$.

(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

(3) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, PCB mounted.

RATINGS AND CHARACTERISTICS CURVES UF601G THRU UF607G

Fig.1 - Forward Current Derating Curve

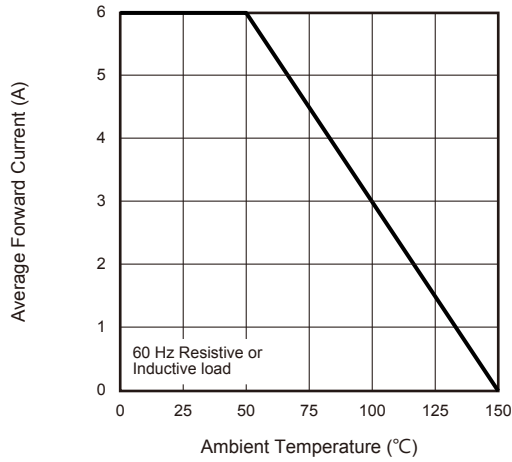


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

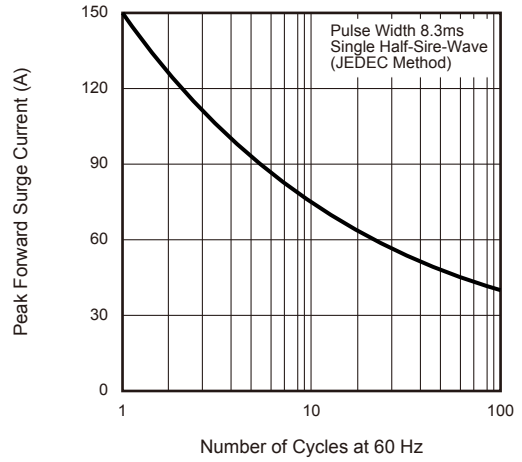


Fig.3 - Typical Instantaneous Forward Characteristics

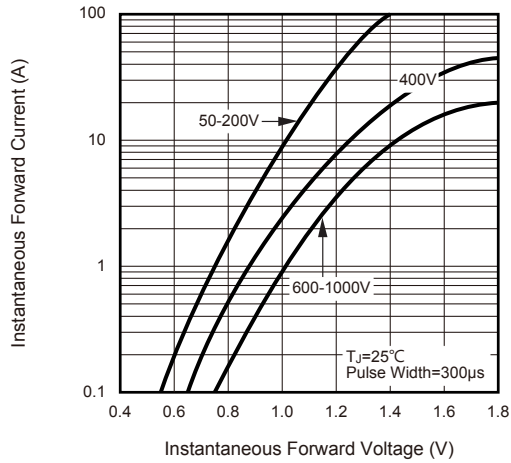


Fig.4 - Typical Reverse Leakage Characteristics

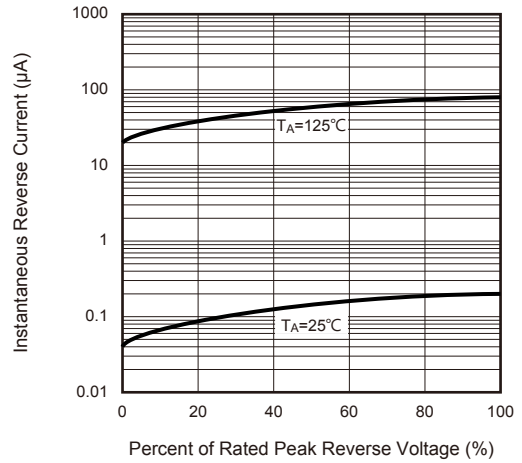


Fig.5 - Typical Junction Capacitance

