

6.0 AMP FAST RECOVERY RECTIFIERS

FR601G THRU FR607G

Vishaymas General Semiconductor

FEATURES

- High reliability
- Low leakage
- Low forward voltage drop
- High current capability
- High switching capability
- Glass passivated junction

MECHANICAL DATA

Case: Molded plastic

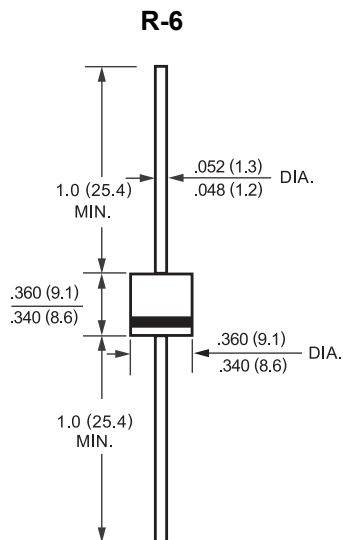
Epoxy: UL 94V-0 rate flame retardant

Lead: MIL-STD-202E, Method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 2.08 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

	SYMBOL	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T _A = 55°C	I _o	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300							Amps
Maximum Instantaneous Forward Voltage at 6.0A DC	V _F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A = 25°C	I _R	5.0							uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at T _L = 55°C		100							uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	150			250	500			nSec
Typical Junction Capacitance (Note 2) Operating and	C _J	50							pF
Storage Temperature Range	T _J , T _{STG}	-65 to + 150							°C

NOTES : 1. 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 volts

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

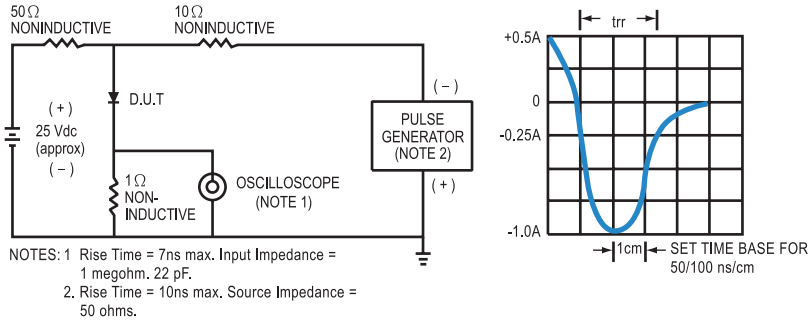


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

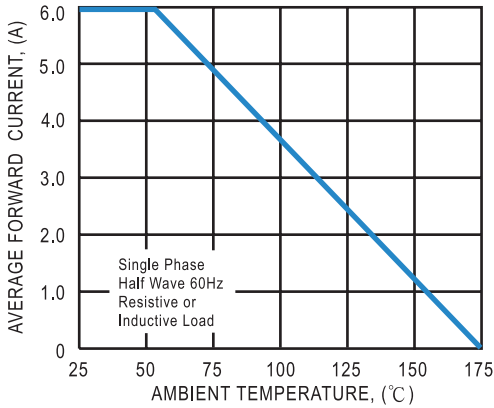


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

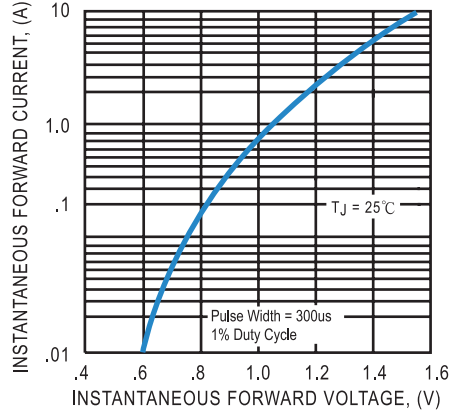


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

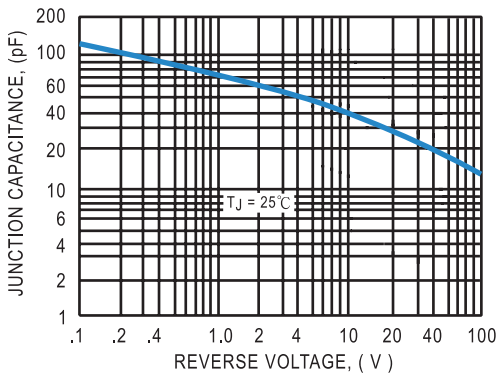


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

