

1.0 AMP FAST RECOVERY RECTIFIERS

1F1G THRU 1F7G Vishaymas General Semiconductor

Features

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

Mechanical Data

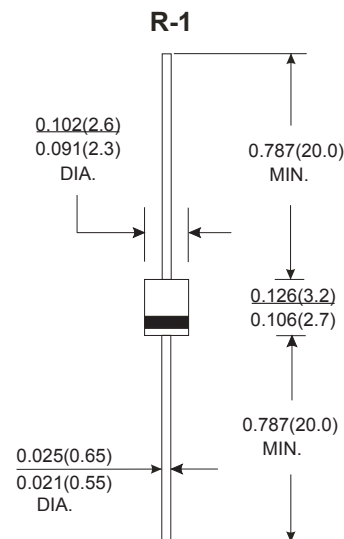
Case : R-1 molded plastic body

Terminals : Plated axial lead solderable per
MIL-STD-750, method 2026

Polarity : Color band denotes cathode end

Mounting Position : Any

Weight : 0.007 ounce, 0.19 gram



Dimensions in inches and (millimeters)

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 by 20%)

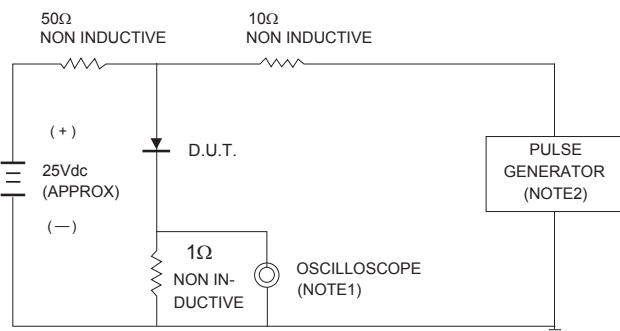
		Symbols	1F1G	1F2G	1F3G	1F4G	1F5G	1F6G	1F7G	Units
Maximum recurrent peak reverse voltage		VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage		VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage		VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length at TA=55°C		IAV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	30.0							Amps
Maximum instantaneous forward voltage at 1.0A		VF	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	TA=25 °C	IR	5.0							μA
	TA=125 °C		100							
Maximum reverse recovery time (Note 1)		Trr	150				250	500		ns
Typical junction capacitance (Note 2)		CJ	15.0							pF
Operating junction and storage temperature range		TJ TSTG	-65 to +150							°C

Notes:

(1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.

(2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

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



NOTES : 1. Rise Time=7ns max. input impedance=1 megohm 22pF
2. Rise Time=10ns max. source impedance =50 ohms

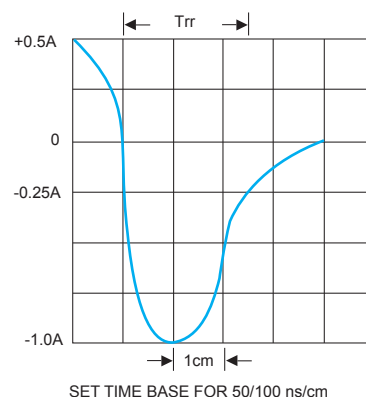


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

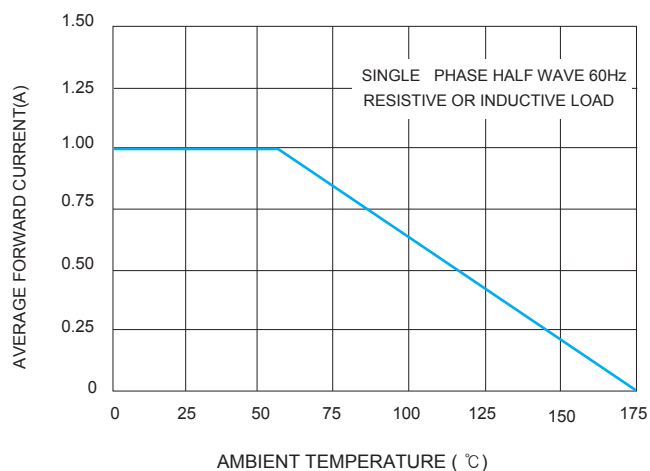


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

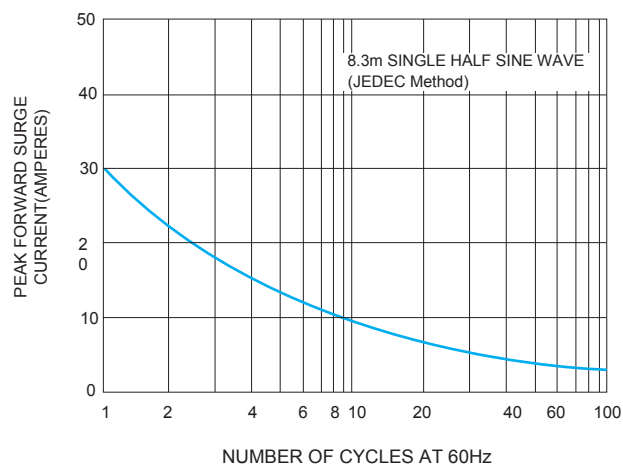


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

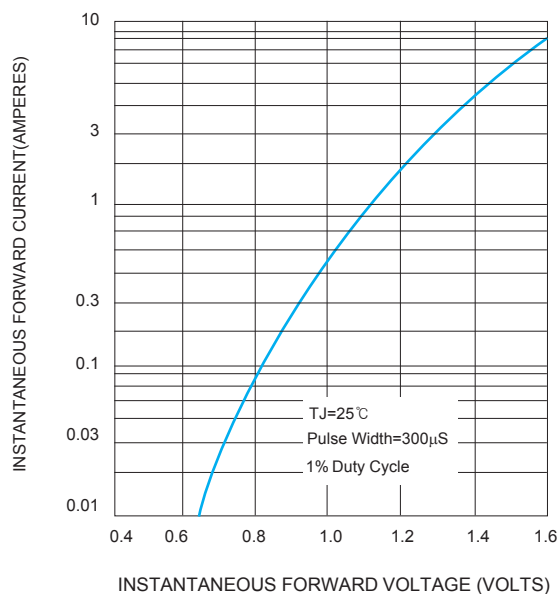


FIG.5-TYPICAL JUNCTION CAPACITANCE

