

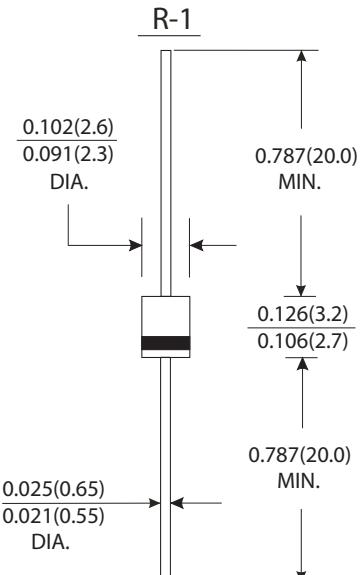
# DEC

## 1F1G THRU 1F7G

CURRENT 1.0 Ampere  
VOLTAGE 50 to 1000 Volts

### Features

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



Dimensions in inches and (millimeters)

### 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

### 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	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts				
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts				
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts				
Maximum average forward rectified current 0.375"(9.5mm) lead length at T <sub>A</sub> =55 °C	I <sub>(AV)</sub>	1.0						Amp					
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30.0						Amps					
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	1.3						Volts					
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25 °C	5.0						μA					
	T <sub>A</sub> =125 °C	100											
Maximum reverse recovery time (Note 1)	T <sub>rr</sub>	150		250		500		ns					
Typical junction capacitance (Note 2)	C <sub>J</sub>	15.0						pF					
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +150						°C					

#### Notes:

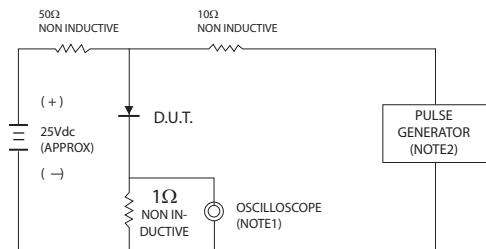
(1) Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>rr</sub>=0.25A.

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

# DEC

## RATINGS AND CHARACTERISTIC CURVES 1F1G THRU 1F7G

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

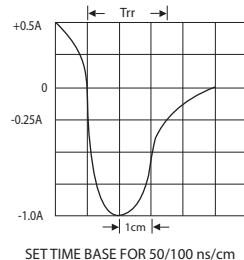


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

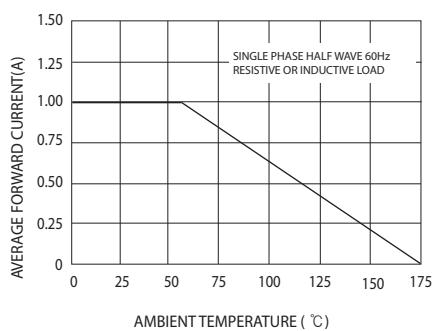


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

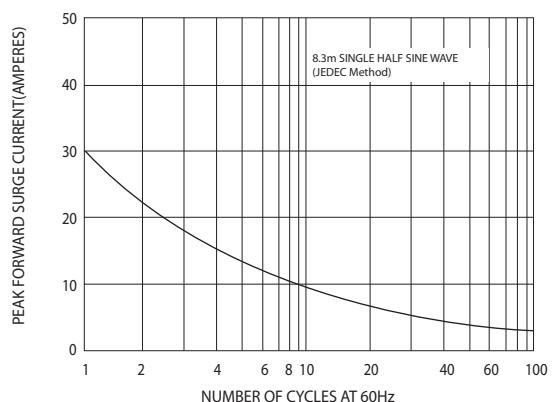


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

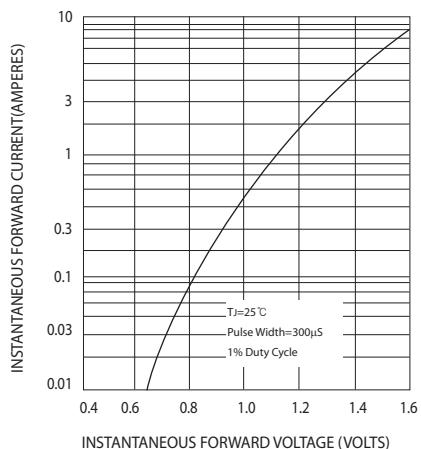


FIG.5-TYPICAL JUNCTION CAPACITANCE

