

1F10 THRU 1F18

PHOTOFLASH FAST RECOVERY RECTIFIER



康 比 電 子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 1000 to 1800 VOLTS

FORWARD CURRENT: 0.5 AMPERE

FEATURES

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability

MECHANICAL DATA

Case: Molded plastic, R-1

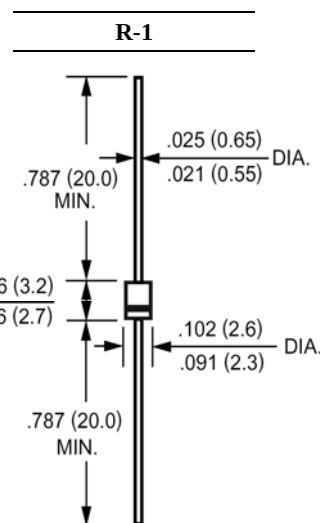
Epoxy: UL 94V-O rate flame retardant

Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.0064ounce, 0.181gram



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 current by 20%.

	Symbols	1F10	1F12	1F14	1F15	1F16	1F18	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	1200	1400	1500	1600	1800	Volts
Maximum RMS Voltage	V_{RMS}	700	840	980	1050	1120	1260	Volts
Maximum DC Blocking Voltage	V_{DC}	1000	1200	1400	1500	1600	1800	Volts
Maximum Average Forward Rectified Current at $T_A=25^{\circ}C$	$I_{(AV)}$	0.5						Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25						Amp
Maximum Forward Voltage at 0.5A DC and 25°C	V_F	1.8						Volts
Maximum Reverse Current at Rated DC Blocking Voltage $T_A=25^{\circ}C$	I_R	5.0						uAmp
Maximum Full Load Reverse Current Average, Full Cycle .375", (9.5mm) lead length at $T_L = 55^{\circ}C$		100						uAmp
Typical Junction Capacitance (Note 1)	C_J	15						pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	300						nS
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150						°C

NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Reverse Recovery Test Conditions: $I_F=.5A$, $I_R=1A$, $I_{RR}=.25A$.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

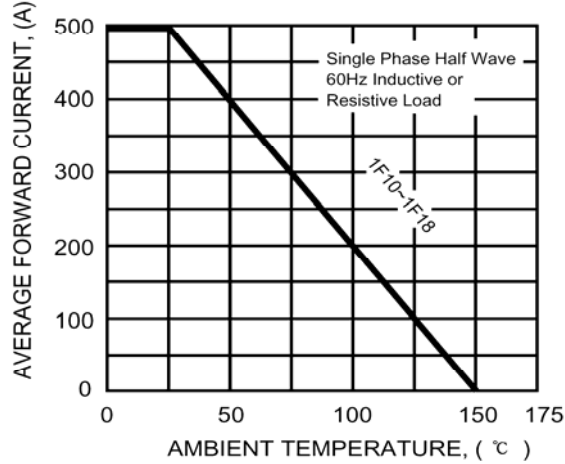


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

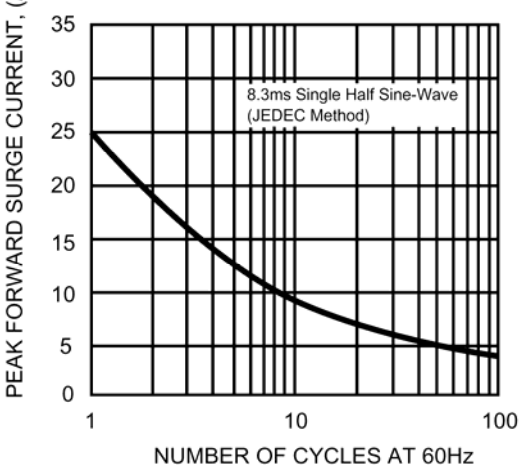
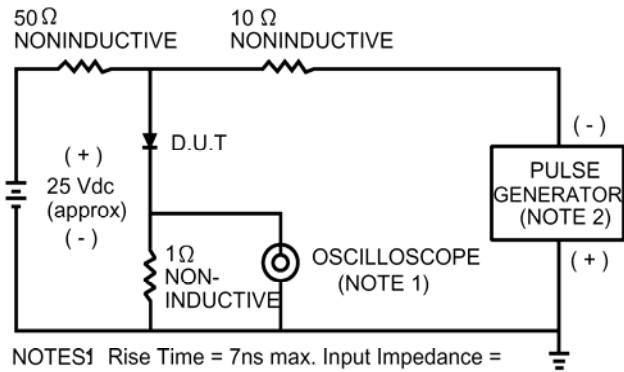


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22 pF.
2. Rise Time = 10ns max. Source Impedance = 50 ohms.

