1F1 THRU 1F7

MINIATURE FAST RECOVERY RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **1.0 AMPERE**

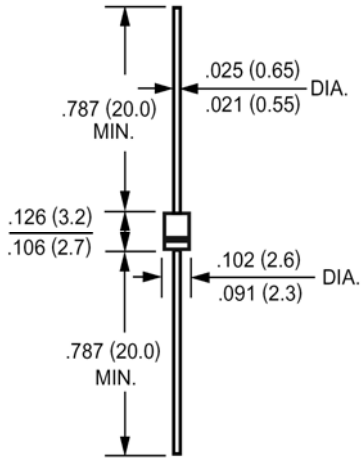
FEATURES

· High current capability
· 1.0 ampere operation at T_A=55℃ with no thermal runaway.
· Fast switching for high efficiency
· Exceeds environmental standards of MIL-S-19500/228
· Low leakage.

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

R-1



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	Symbols	*1F1*	*1F2*	*1F3*	*1F4*	*1F5*	*1F6*	*1F7*	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 .375"(9.5mm) Lead Length at T_A=25℃	$I_{(AV)}$	1.0							**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 1.0A DC and 25℃	V_F	1.3							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	5.0							**uAmp**
at Rated DC Blocking Voltage T_A=100℃		50							
Typical Junction Capacitance (Note 1)	C_J	12							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	67							**℃/W**
Maximum Reverse Recovery Time (Note 3)	T_{RR}	150				250	500		**nS**
Operating and Storage Temperature Range	T_J，Tstg	-55 to +150							**℃**

NOTES:

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

2- Thermal Resistance From Junction to Ambient 0.375"(9.5mm) lead length P.C.B. Mounted with 0.22x0.22" (5.5x5.5mm) copper pads.

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

1F1 THRU 1F7

MINIATURE FAST RECOVERY RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

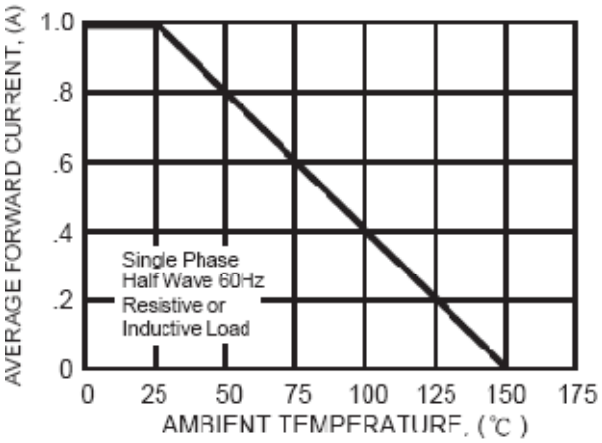


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

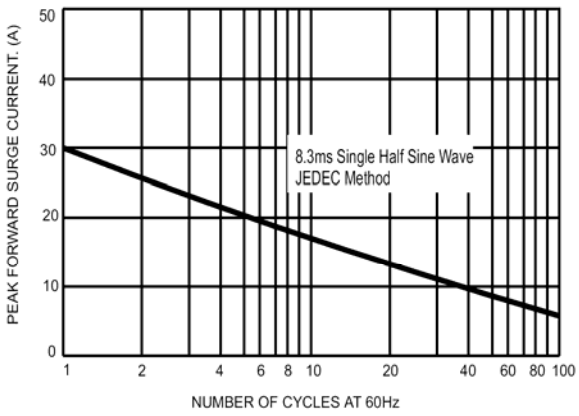


FIG.3- TYPICAL FORWARD CHARACTERISTICS

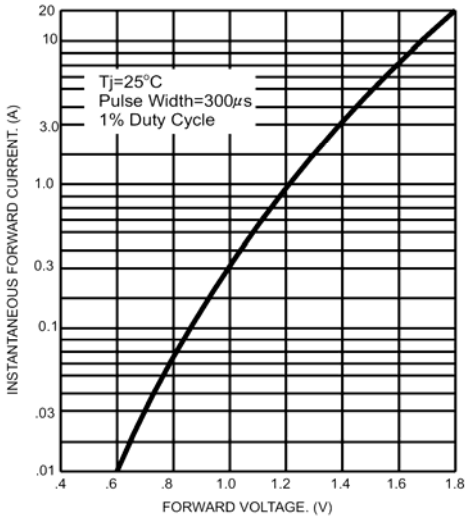


FIG.4- TYPICAL JUNCTION CAPACITANCE

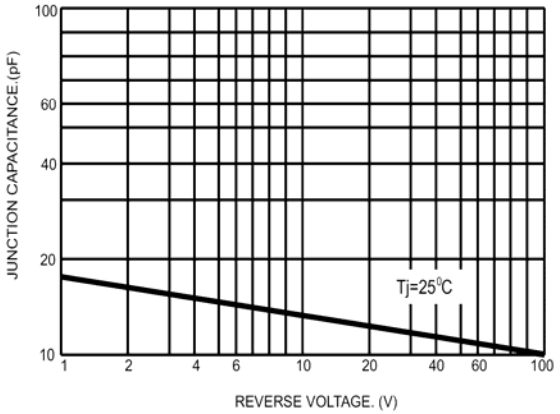


FIG.5- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

