Compact Technology

1F1G thru 1F7G

FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE **- 50** to **1000** Volts
FORWARD CURRENT **- 1.0** Amperes

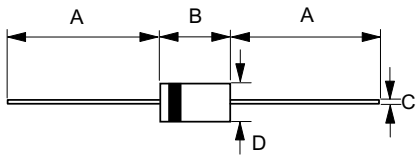
FEATURES

- Fast switching for high efficiency
- Low cost
- Glass passivation junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case : R-1 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.19 grams
- Mounting position : Any

R-1



	R-1	
Dim.	Min.	Max.
A	20.0	-
B	2.90	3.50
C	0.50 ∅	0.60 ∅
D	2.20 ∅	2.60 ∅
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS	SYMBOL	1F1G	1F2G	1F3G	1F4G	1F5G	1F6G	1F7G	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	25							A
Maximum forward Voltage at 1.0A DC	V_F	1.3							V
Maximum DC Reverse Current @T_J =25˚C at Rated DC Blocking Voltage @T_J =100˚C	I_R	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C_J	15							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	67							˚C/W
Operating Temperature Range	T_J	-55 to +150							˚C
Storage Temperature Range	T_{STG}	-55 to +150							˚C

NOTES : 1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A.
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3.Thermal Resistance Junction to Case at 9.5mm Lead Length.PCB Mounted JEDEC Registered Value.

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

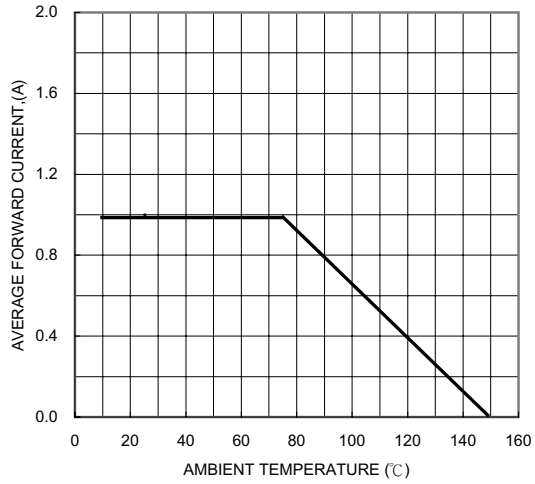


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

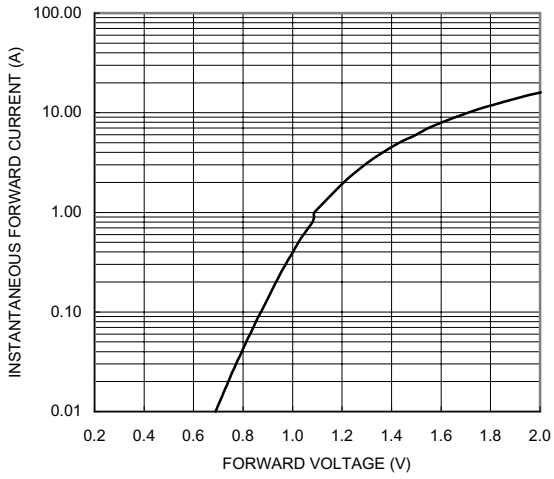


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

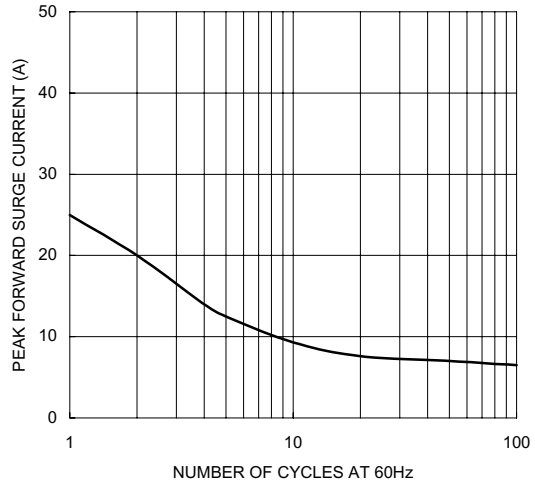


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

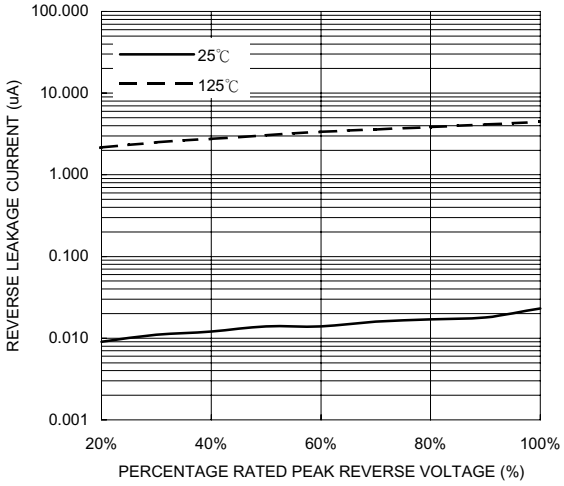


FIG. 5-TYPICAL JUNCTION CAPACITANCE