

CTC 1F1G-1F7G RECTIFIER Datasheet

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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

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FAST RECOVERY RECTIFIERS

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

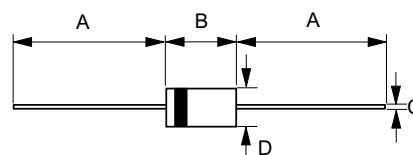
FEATURES

- Fast switching for high efficiency
- Low cost
- Glass passivation junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
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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 \varnothing	0.60 \varnothing
D	2.20 \varnothing	2.60 \varnothing
All Dimensions in millimeter		

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%

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 _{θJA}	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

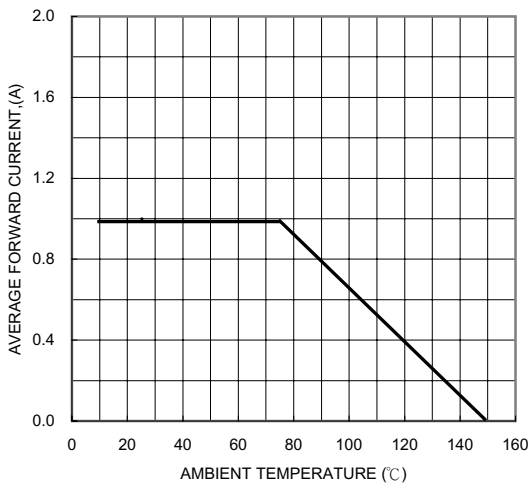


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

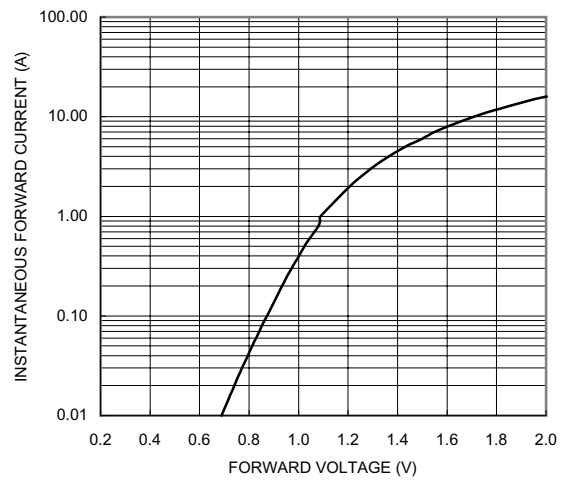


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

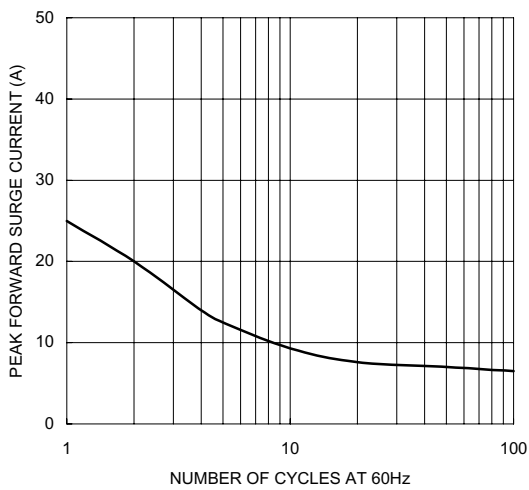


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

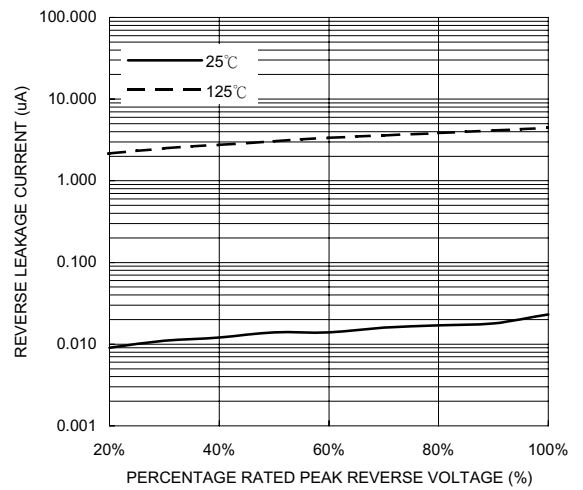


FIG. 5-TYPICAL JUNCTION CAPACITANCE

