

## FAST RECOVERY RECTIFIERS

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

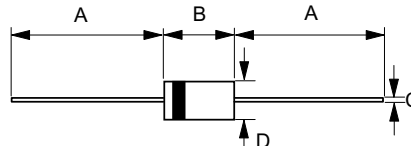
### FEATURES

- 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 $\varnothing$	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 <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I <sub>(AV)</sub>	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25							A
Maximum forward Voltage at 1.0A DC	V <sub>F</sub>	1.3							V
Maximum DC Reverse Current @T <sub>J</sub> =25°C at Rated DC Blocking Voltage @T <sub>J</sub> =100°C	I <sub>R</sub>	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	150				250	500		ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	15							pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	67							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

NOTES : 1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=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

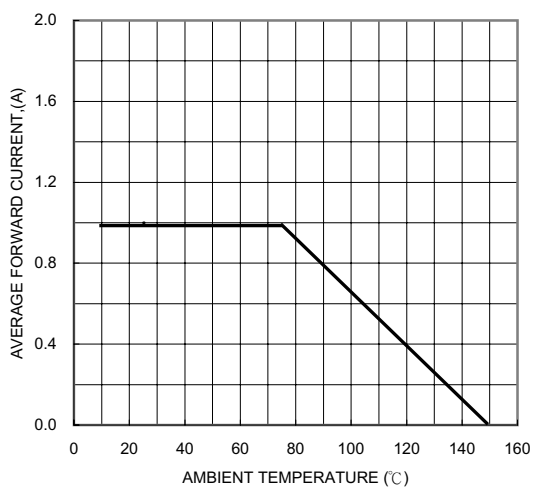


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

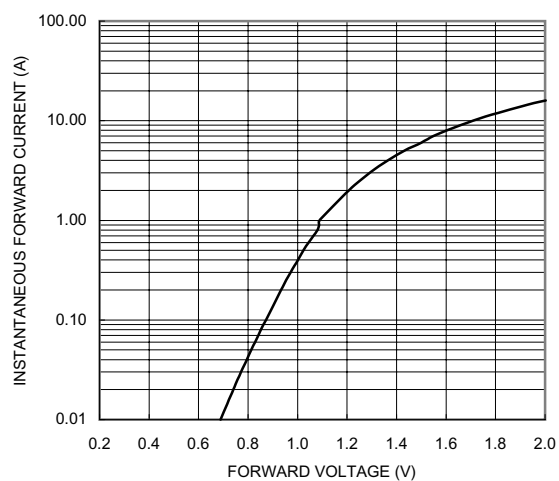


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

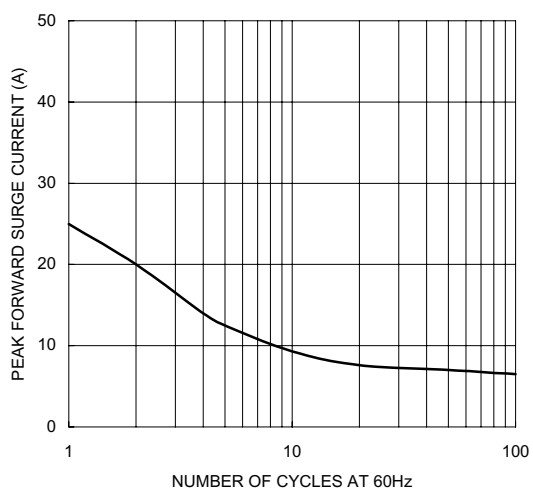


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

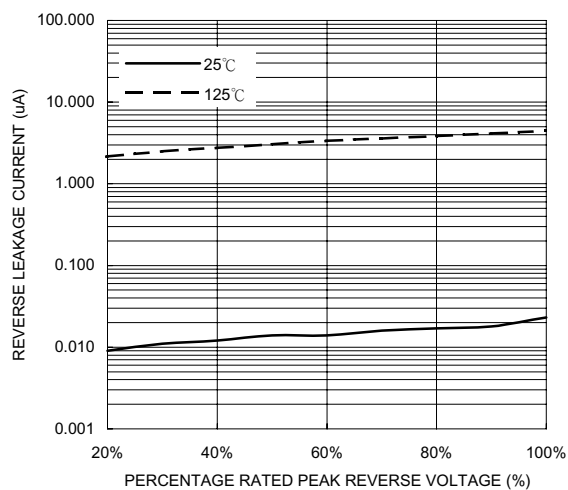


FIG. 5-TYPICAL JUNCTION CAPACITANCE

