

## Features

- Low leakage current
- Low forward voltage drop
- Glass passivated chip junction
- For general purpose applications
- Moisture sensitivity: level 1, per J-STD-020
- For fast switching and low logic level applications
- High temperature soldering guaranteed: 260°C/10 seconds



R-1

## Applications

Small battery charger, power supplies

## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	1F1G	1F2G	1F3G	1F4G	1F5G	1F6G	1F7G	Unit
Maximum Repetitive 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>F(AV)</sub>	1							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load per Diode	I <sub>FSM</sub>	30							A
Typical Thermal Resistance, Junction to Ambient <sup>1</sup>	R <sub>θJA</sub>	75							°C/W
Typical Thermal Resistance, Junction to Case <sup>1</sup>	R <sub>θJC</sub>	36							°C/W
Typical Thermal Resistance, Junction to Lead <sup>1</sup>	R <sub>θJL</sub>	25							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Condition	1F1G	1F2G	1F3G	1F4G	1F5G	1F6G	1F7G	Unit
Forward Drop Voltage	V <sub>F</sub>	I <sub>F</sub> =1A	1.30							V
Reverse Leakage Current @ V <sub>R</sub>	I <sub>R</sub>	T <sub>J</sub> =25°C	5							uA
		T <sub>J</sub> =125°C	100							
Typical Junction Capacitance	C <sub>J</sub>	4.0V, 1MHz	12							pF
Maximum Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	150			250		500		nS

Notes:

1. Valid provided that leads at a distance of 9.5mm from case are kept at ambient temperature.

## Ratings and Characteristics Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

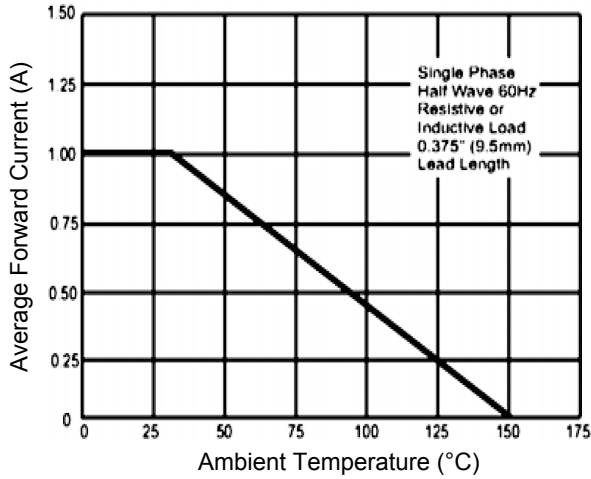


Figure 1. Maximum Forward Current Derating Curve

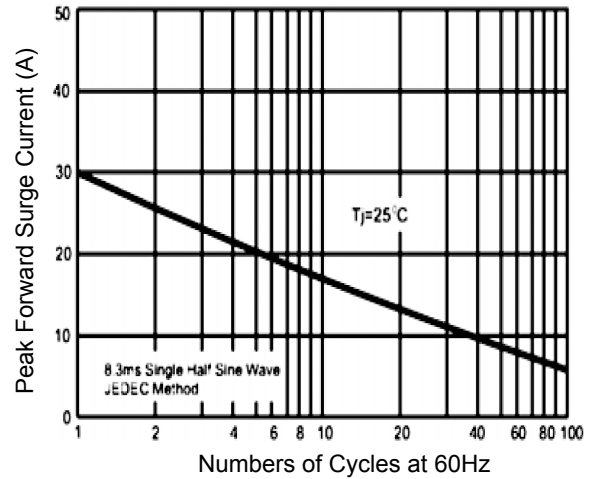


Figure 2. Maximum Non-Repetitive Forward Surge Current

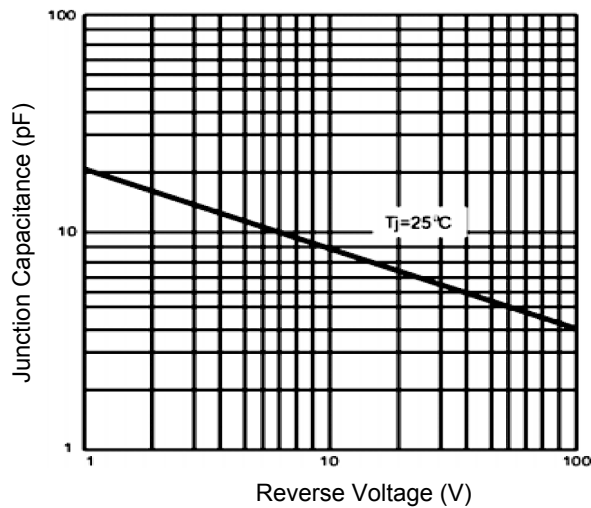


Figure 3. Typical Junction Capacitance

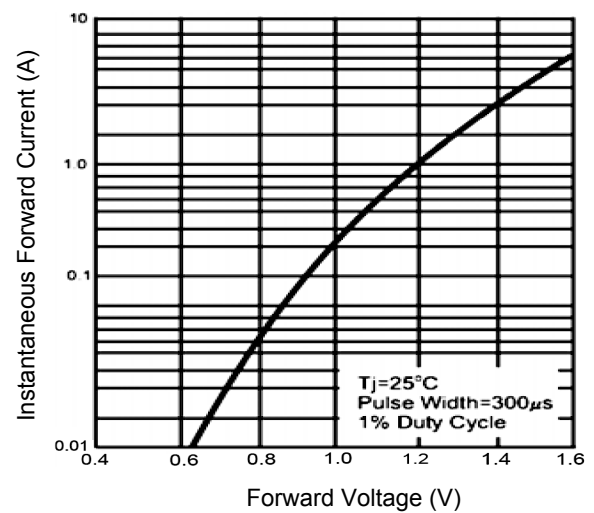
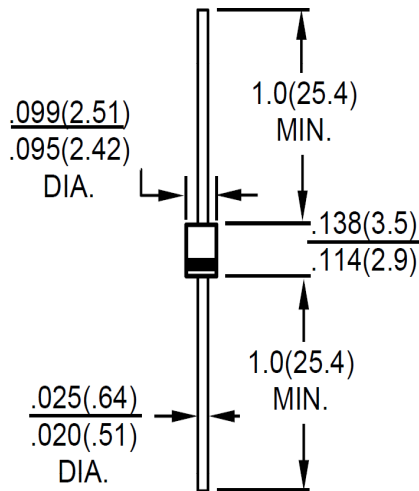


Figure 4. Typical Forward Characteristics

## Package Outline Dimensions (R-1)



Dimensions in inches and (millimeters)

## Order Information

Device	Package	Marking	Packaging	SPQ
1F1G	R-1	1F1G	Tape & Box	3,000 Pcs / Box
1F2G	R-1	1F2G	Tape & Box	3,000 Pcs / Box
1F3G	R-1	1F3G	Tape & Box	3,000 Pcs / Box
1F4G	R-1	1F4G	Tape & Box	3,000 Pcs / Box
1F5G	R-1	1F5G	Tape & Box	3,000 Pcs / Box
1F6G	R-1	1F6G	Tape & Box	3,000 Pcs / Box
1F7G	R-1	1F7G	Tape & Box	3,000 Pcs / Box