

# Super Fast Recovery Rectifier Diodes

## V<sub>RRM</sub> - 50 Volts & 150 Volts, 6A

**multicomp** PRO

**RoHS  
Compliant**



### Features

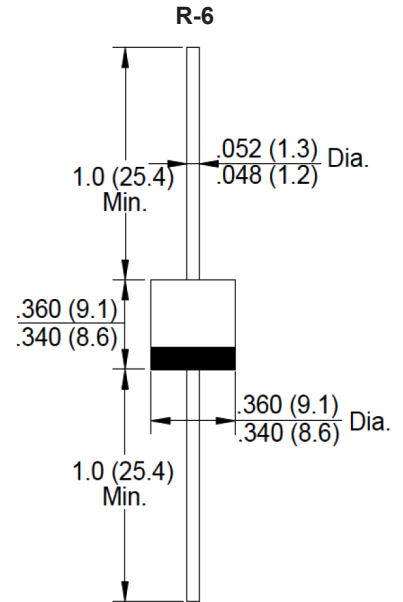
- Glass Passivated (GPP)
- Super fast switching for high efficiency
- Low leakage current
- High forward surge capability
- Solder dip 260°C, 40s
- Component in accordance to WEEE 2002/96/EC
- Lead free
- Case style: R-6 molded plastic

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.



Dimensions : Inches (Millimetres)

Characteristics	Symbol	SF61G	SF63G	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	150	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	105	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	150	
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length @ T <sub>A</sub> = 55°C	I <sub>(AV)</sub>	6		A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	150		A
Maximum Instantaneous Forward Voltage at 6A	V <sub>F</sub>	0.95		V
Max. DC Reverse Current @ T <sub>J</sub> = 25°C	I <sub>R</sub>	5		µA
Rated DC Blocking Voltage @ T <sub>J</sub> = 100°C		50		
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	35		nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	120		pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	30		°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 to +150		°C
Storage Temperature Range	T <sub>STG</sub>			

### Notes:

1. Reverse recovery condition I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A, I<sub>RR</sub> = 0.25A
2. Measured at 1 MHz and applied reverse voltage of 4V DC
3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted
4. The typical data above is for reference only

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### Rating and Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

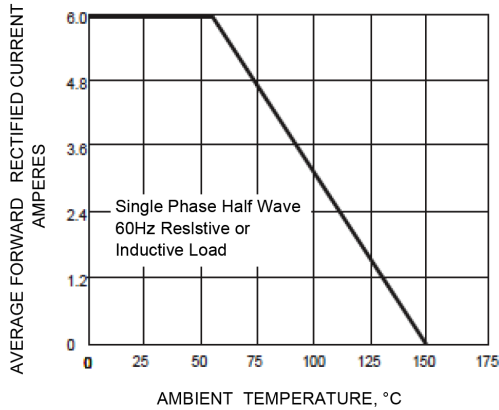


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

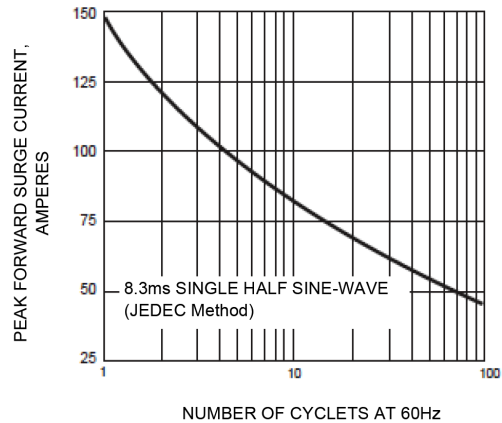


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

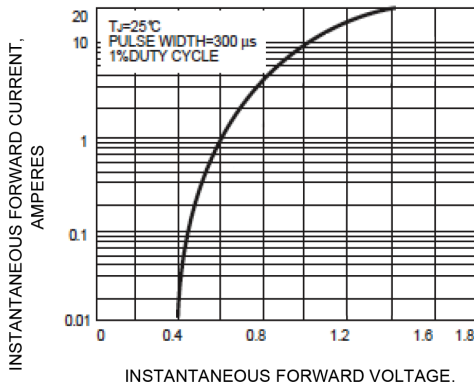
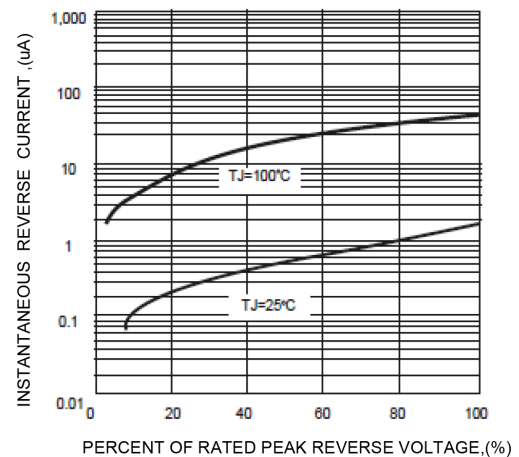


FIG.4-TYPICAL REVERSE CHARACTERISTICS



### Part Number Table

Description	Part Number
Rectifier Diode, Super Fast, 50V, 6A, R-6	SF61G
Rectifier Diode, Super Fast, 150V, 6A, R-6	SF63G

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