Super Fast Rectifier

Features:

- Super fast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

Mechanical Data:

Case	: JEDEC R-6 molded plastic
Polarity	: Colour band denotes cathode
Weight	: 0.07 ounces, 2.1 grams
Mounting Position	: Any
Reverse Voltage	: 150 Volts
Forward Current	: 6 Amperes

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%.

Characteristics	Symbol	Values	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	150	V
Max. RMS Voltage	V_{RMS}	105	
Max. DC Blocking Voltage	V_{DC}	150	
Max. Average Forward Rectified Current T_A = 55°C	$I_{(AV)}$	6	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC method)	I_{FSM}	150	
Peak Forward Voltage at 4A DC	V_F	0.975	V
Max. DC Reverse Current at T_J = 25°C Rated DC Blocking Voltage at T_J = 100°C	I_R	10 100	µA
Max. Reverse Recovery Time (Note 1)	T_{RR}	35	nS
Typical Junction Capacitance (Note 2)	C_J	100	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	5	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}		

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 ambient.
4. The typical data above is for reference only

Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

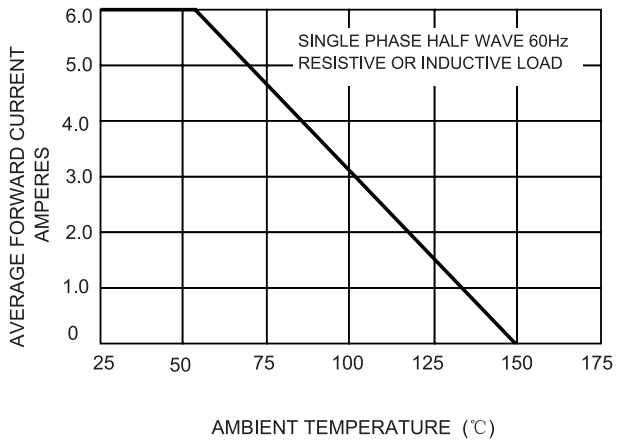


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

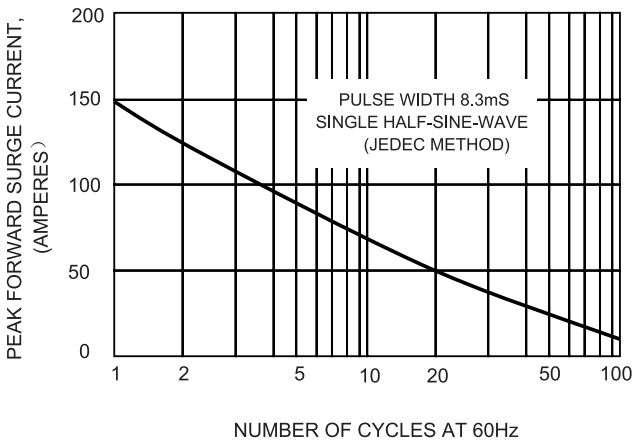


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

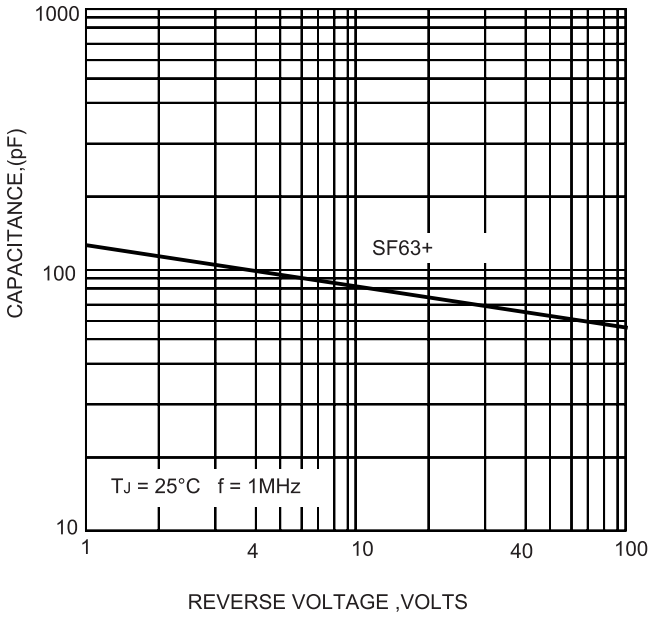
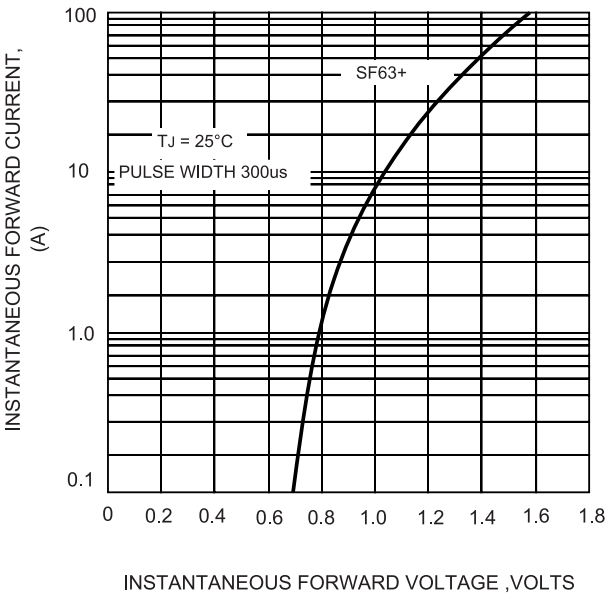
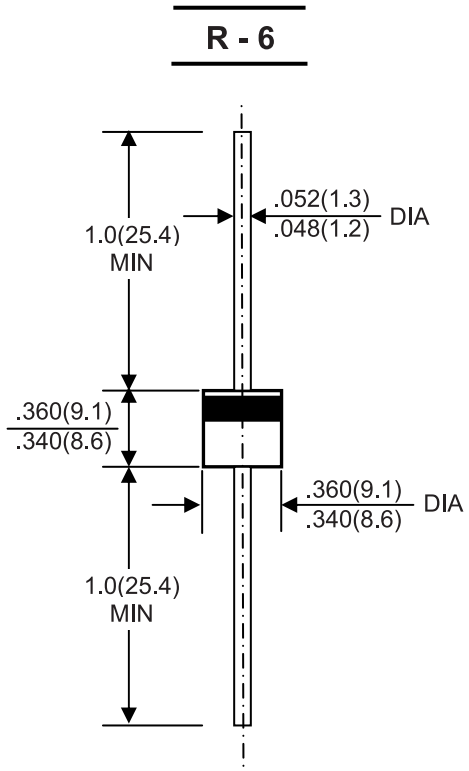


FIG.4-TYPICAL FORWARD CHARACTERISTICS



Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Super Fast Rectifier	SF63+