

SF31 thru SF38

SUPERFAST RECOVERY RECTIFIERS

REVERSE VOLTAGE - **50** to **600** Volts
FORWARD CURRENT - **3.0** Amperes

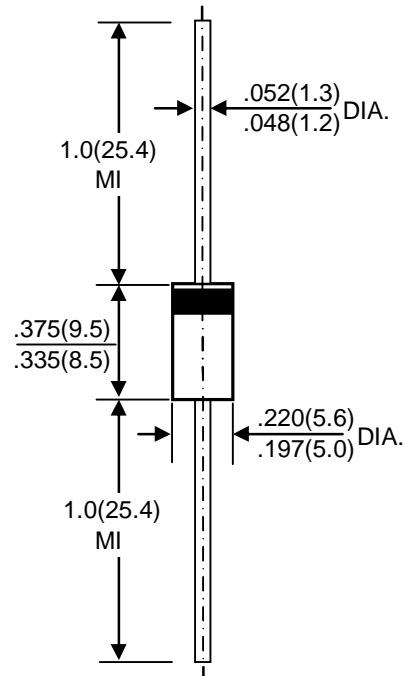
FEATURES

- 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 DO-27 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.04 ounces , 1.1 grams
- Mounting position: Any

DO-27



Dimensions in inches and (millimeters)

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	SF31	SF32	SF33	SF34	SF35	SF36	SF38	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current @ T _A =55 °C	I(AV)	3.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	125							A
Peak Forward Voltage at 3.0A DC(Note1)	V _F	0.95				1.25			V
Maximum DC Reverse Current @ T _J =25°C at Rated DC Blocking Voltage @ T _J =100°C	I _R	5.0				100			uA
Maximum Reverse Recovery Time(Note 1)	T _{rr}	35							nS
Typical Junction Capacitance (Note2)	C _J	70				45			pF
Typical Thermal Resistance (Note3)	R _{θJA}	20							°C/W
Operating Temperature Range	T _J	-55 to +125							°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 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient,

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FIG. 1 – FORWARD CURRENT DERATING CURVE

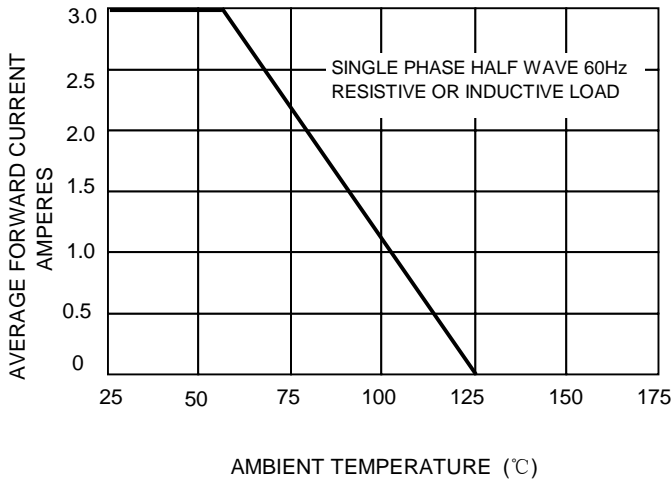


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

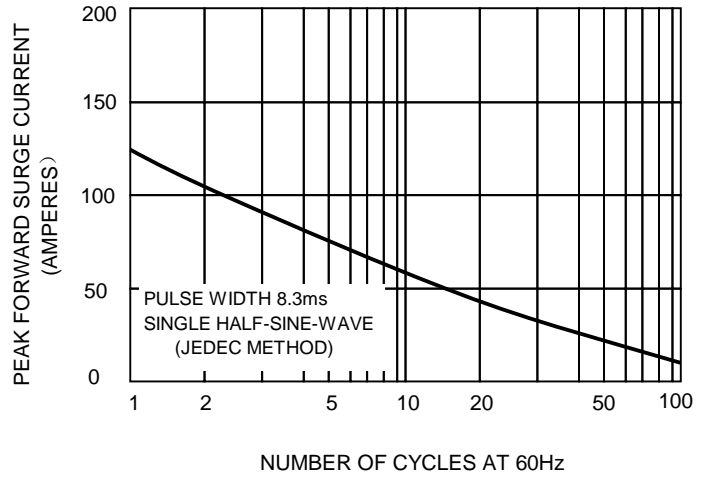


FIG.3 – TYPICAL JUNCTION CAPACITANCE

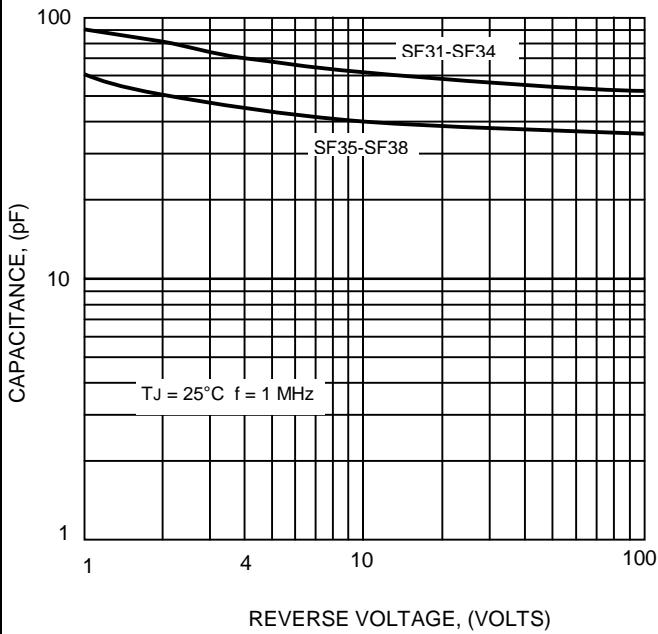


FIG.4-TYPICAL FORWARD CHARACTERISTICS

