

SF31 thru SF36

SUPER FAST RECTIFIER



**CHENG-YI
ELECTRONIC**



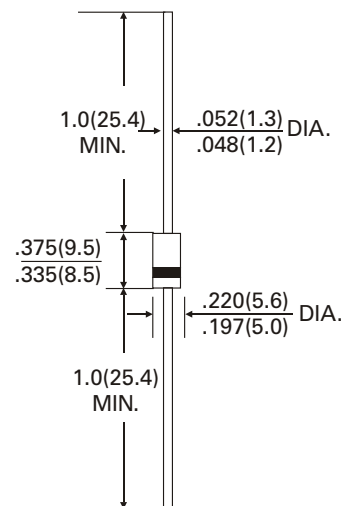
FEATURES

- High reliability
- Low leakage
- Low forward voltage
- High current capability
- Super fast switching speed
- High surge capability
- Good for switching mode circuit

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: MIL-STD-202E method 208C guaranteed
- Mounting position: Any
- Weigh: 1.18 grams

SUPER FAST RECTIFIER
VOLTAGE RANGE-50 to 400 Volts
CURRENT-3.0 Amperese



Dimensions in inches and (millimeters)

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%.

MAXIMUM RATINGS (At T_A=25°C unless otherwise noted)

MAXIMUM RATINGS (At TA=25°C unless otherwise noted)								
RATINGS	SYMBOL	SF31	SF32	SF33	SF34	SF35	SF36	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	Volts
Maximum RMS Voltage	VRMS	35	70	105	140	210	280	Volts
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @TA=55°C	IO	3.0						Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	125						Amps
Typical Junction Capacitance (Note 2)	CJ	50				30		pF
Operating and Storage Temperature Range	TJ TSTG	-65 to +150						°C

ELECTRICAL CHARACTERISTICS (At T_A=25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	SF31	SF32	SF33	SF34	SF35	SF36	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC		V _F	0.95				1.25		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _A =25°C	I _R	5.0						uAmps
	@T _A =150°C		50						uAmps
Maximum Reverse Recovery Time (Note1)		t _{rr}	35						nSec

Notes : 1. Test Condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

SF31 thru SF36

SUPER FAST RECTIFIER



**CHENG-YI
ELECTRONIC**

RATING AND CHARACTERISTICS CURVES SF31 THRU SF36

Fig. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

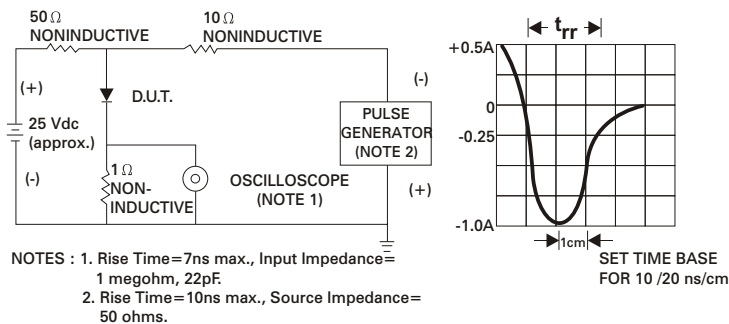


Fig. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

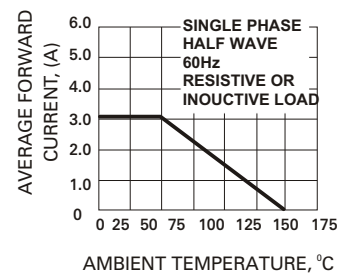


Fig. 3 - TYPICAL REVERSE CHARACTERISTICS

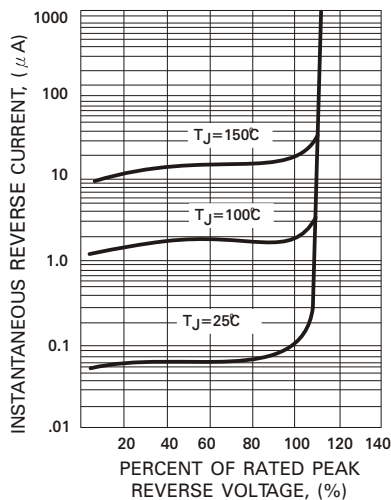


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

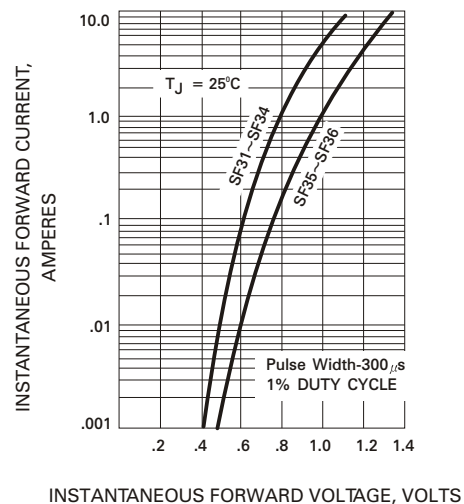


Fig. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

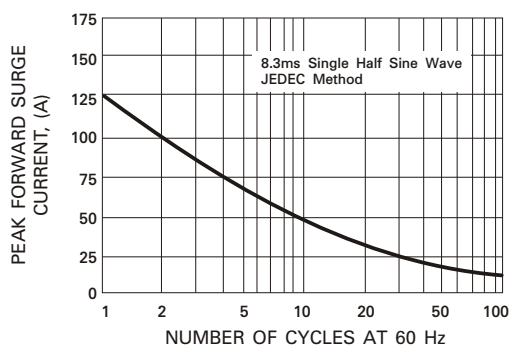


Fig. 6 - TYPICAL JUNCTION CAPACITANCE

