



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206



SUPER FAST RECOVERY RECTIFIER

SF51 THRU SF56

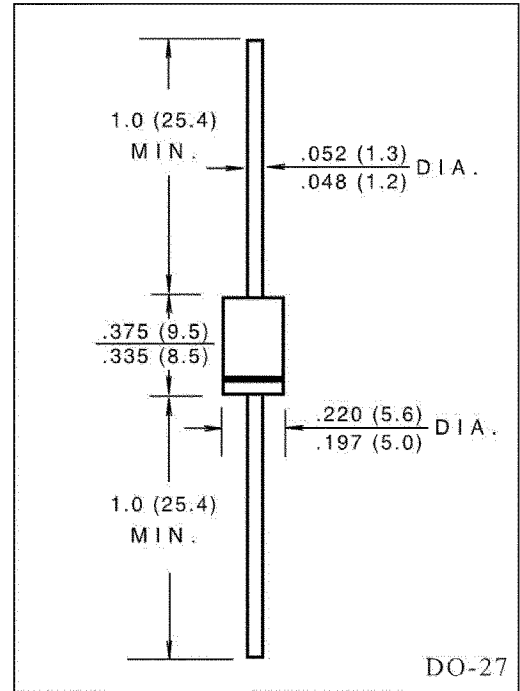
VOLTAGE RANGE 50 to 400 Volts
CURRENT 5.0 Ampere

FEATURES

- Super fast switching speed.
- Low leakage.
- Low forward voltage.
- High current capability.
- High surge capability
- High temperature soldering guaranteed:
260°C/10 seconds, 0.375" (9.5mm) lead length
at 5 lbs. (2.3kg) tension.

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denoted cathode end.
- Lead: Plastic axial lead, solderable per MIL - STD - 202E
method 208C
- Mounting position : Any
- Weight: 0.042 ounce, 1.19 gram



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%

		SYMBOLS	SF51	SF52	SF53	SF54	SF55	SF56	UNIT
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	50	10	150	200	300	400	Volts
Maximum RMS Voltage		V _{RMS}	35	70	105	140	210	280	Volts
Maximum DC Blocking Voltage		V _{DC}	50	100	150	200	300	400	Volts
Maximum Average Forward Rectified Current, 0.375" (9.5mm) lead length at T _A = 55°C		I _(AV)	5.0						Amps
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)		I _{FSM}	150						Amps
Maximum Instantaneous Forward Voltage at 5.0A		V _F	0.95				1.25		Volts
Maximum DC Reverse Current at rated DC blocking voltage per element	T _A = 25°C	I _R	5.0						μ A
	T _A = 125°C		150						
Maximum Reverse Recovery Time (Note 1)		t _{rr}	35						nS
Typical Junction Capacitance (Note 2)		C _j	50				30		pF
Typical Thermal Resistance (Note 3)		R _{θJA}	30						°C/W
Operating and Storage Temperature Range		T _J , T _{STG}	(-65 to +150)						°C

NOTES:

1. Test condition: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.
2. Measured at 1MHz and applied reverse voltage of 4.0 volts.
3. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length P.C.B. mounted.



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 2790-0314 FAX: 2790-0206

RATINGS AND CHARACTERISTIC CURVES SF51 THRU SF56

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

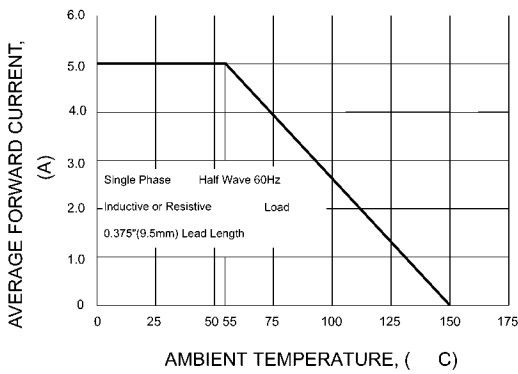


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

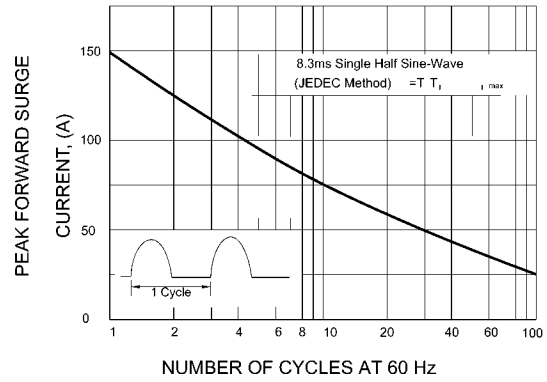


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

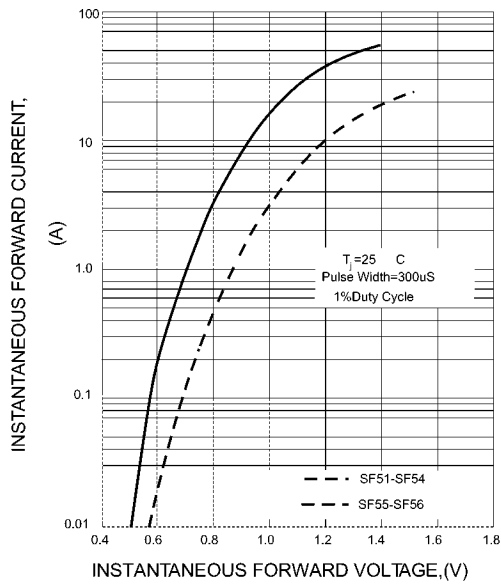


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

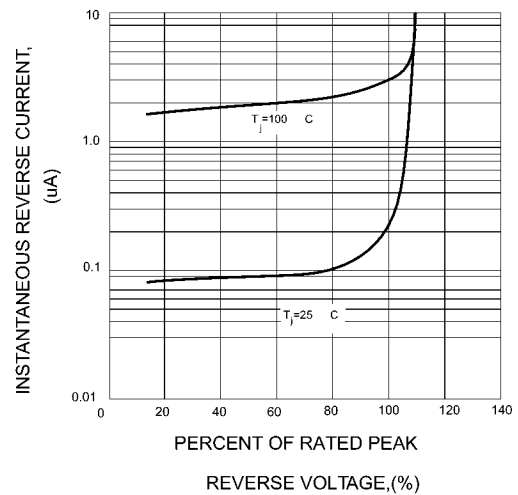


FIG.5-TYPICAL JUNCTION CAPACITANCE

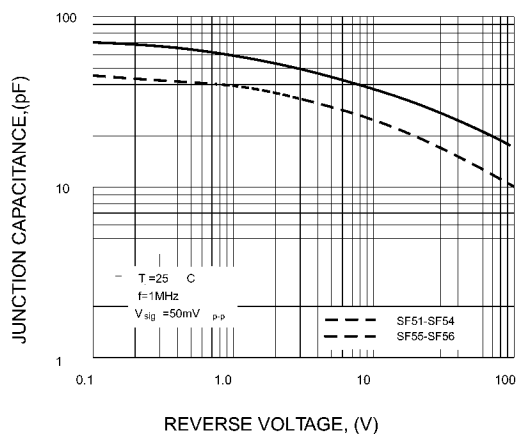


FIG.6-TEST CIRCUIT DIAGRAM AND
REVERSE RECOVERY TIME CHARACTERISTIC

