

DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SF51 THRU SF56

TECHNICAL SPECIFICATIONS OF SUPER FAST RECTIFIER VOLTAGE RANGE - 50 to 400 Volts CURRENT- 5.0 Amperes

FEATURES

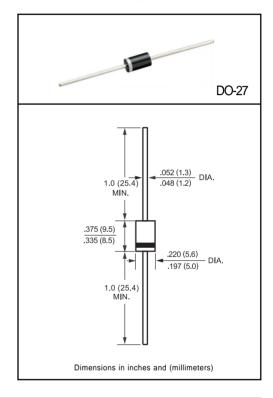
- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Super fast switching speed
- * High surge capability
- * Good for switching mode circuit

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Mounting position: Any
- * Weight: 1.18 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.



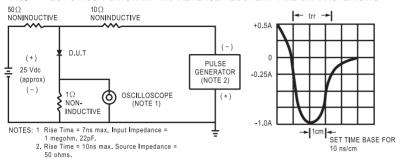
		SYMBOL	SF51	SF52	SF53	SF54	SF55	SF56	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	50	100	150	200	300	400	Volts
Maximum RMS Volts		VRMS	35	70	105	140	210	280	Volts
Maximum DC Blocking Voltage		VDC	50	100	150	200	300	400	Volts
Maximum Average Forward Current at TA = 55°C		lo	5.0						Amps
Peak Forward Surge Current IFM (surge):8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	150						Amps
Maximum DC Reverse Current	@TA = 25°C		5.0						uAmps
at Rated DC Blocking Voltage	@Ta =125°C	lR IR	150						
Maximum Forward Voltage at 5.0A DC		VF	0.95 1.25			25	Volts		
Maximum Reverse Recovery Time (Note 1)		trr	35					nSec	
Typical Junction Capacitance (Note 2)		Cı	50			30		pF	
Operating and Storage Temperature Range		TJ, TSTG	-65 to + 150						٥C

NOTES: 1. Test Conditions: IF=0.5A, IR=1.0A, IRR=0.25A.

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

RATING AND CHARACTERISTIC CURVES (SF51 THRU SF56)

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



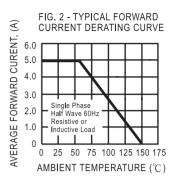


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

100 INSTANTANEOUS REVERSE CURRENT, (uA) TJ = 150°C 10 TJ = 100℃ 1.0 = 25°C .1 .01 0 20 40 60 80 100 120 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

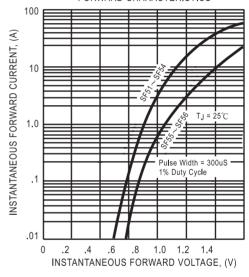


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

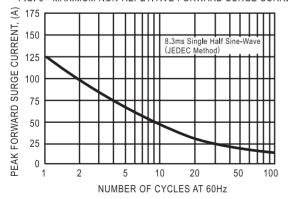
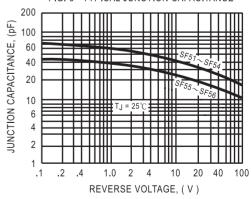


FIG. 6 - TYPICAL JUNCTION CAPACITANCE





DC COMPONENTS CO., LTD.