

RoHS Compliant Product

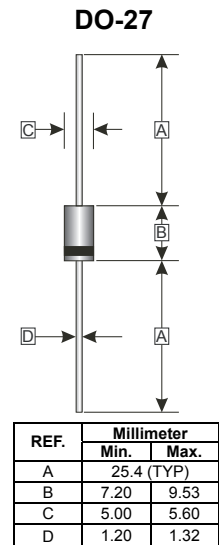
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- High speed switching

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 1.1050 grams (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

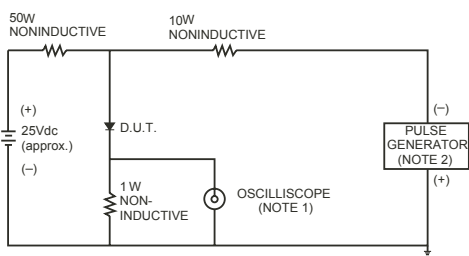
Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SF51	SF52	SF53	SF54	SF55	UNITS
Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	V
Max. RMS Voltage	35	70	140	280	420	V
Max. DC Blocking Voltage	50	100	200	400	600	V
Max. Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at T _A = 55°C	5.0					A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	100					A
Max. Instantaneous Forward Voltage at 5.0A	1.0		1.30		1.70	V
Max. DC Reverse Current T _A = 25°C at Rated DC Blocking Voltage T _A = 100°C	5.0 50					μA
Maximum Reverse Recovery Time (Note 1)	35			50		nS
Typical Junction Capacitance (Note 2)	50					pF
Storage temperature	-65 ~ +150					°C

Notes: 1. Reverse Recovery Time test conditions: I_F = 0.5 A, I_R = 1.0 A, I_{RR} = 0.25 A
2. Measured at 1 MHz and applied reverse voltage of 4.0 V D.C.

RATINGS AND CHARACTERISTIC CURVES (SF51 THRU SF55)

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



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

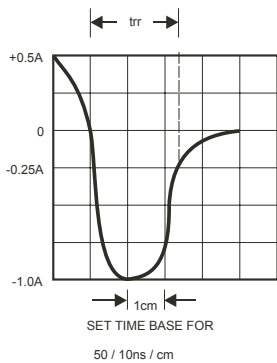


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

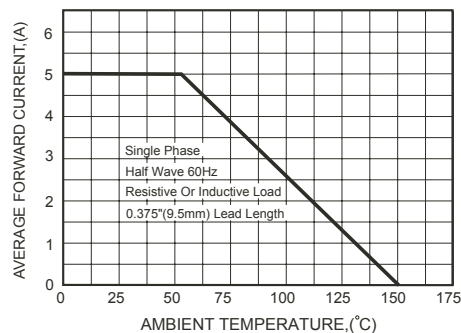


FIG.3-TYPICAL FORWARD CHARACTERISTICS

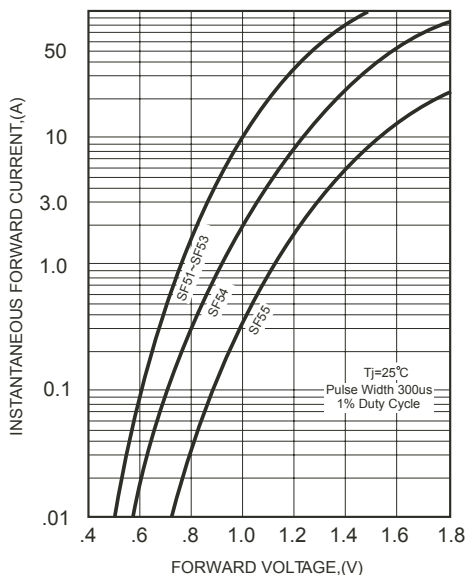


FIG.4-TYPICAL REVERSE CHARACTERISTICS

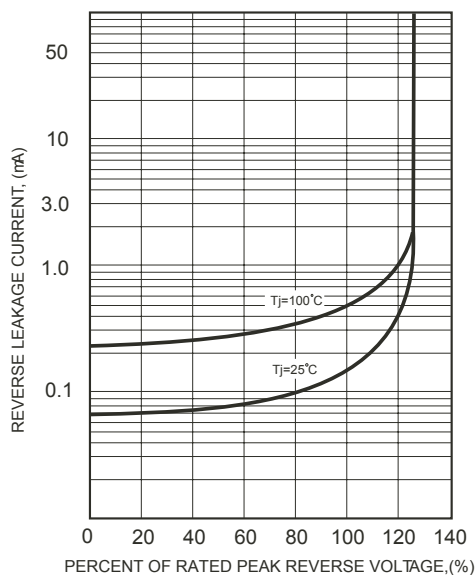


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

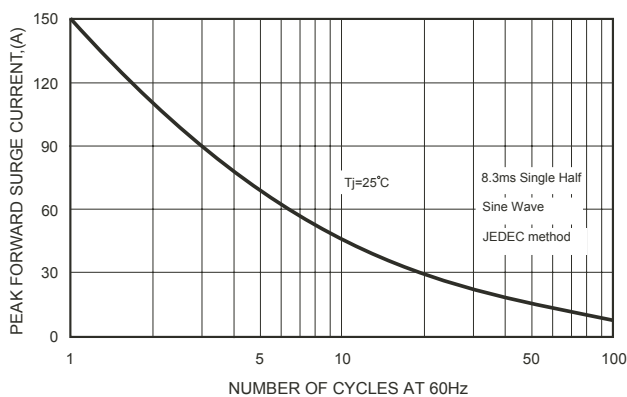


FIG.6-TYPICAL JUNCTION CAPACITANCE

