



Super Fast Rectifiers Reverse Voltage 50V~600V, Forward Current 5.0Amp

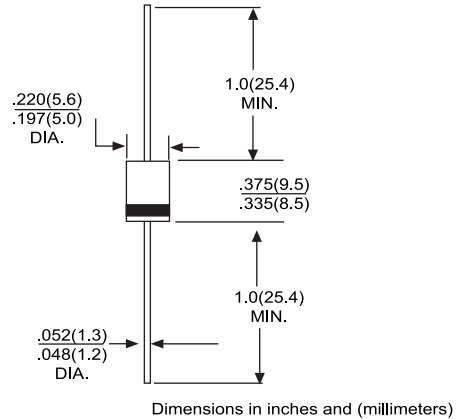
Features

- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High reliability
- ◆ High surge current capability

Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-O rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- Weight: 1.2 gramS

DO-201AD



Maximum Ratings and Electrical Characteristics

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

Type Number		SF51	SF52	SF53	SF54	SF55	SF56	SF57	SF58	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T _A = 55°C	I _{F(AV)}	5.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150								A
Maximum Instantaneous Forward Voltage @ 5.0A	V _F	0.95			1.3		1.7			V
Maximum DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 100°C	I _R	5.0				50				uA uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	35								nS
Typical Junction Capacitance (Note 2)	C _J	100				80				pF
Operating Temperature Range	T _J	-55 to+150								°C
Storage Temperature Range	T _{STG}	-55 to+150								°C

NOTES: 1. Reverse Recovery Test Conditions: 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 D.C.

RATINGS AND CHARACTERISTIC CURVES

FIG.1: FORWARD CURRENT DERATING CURVE

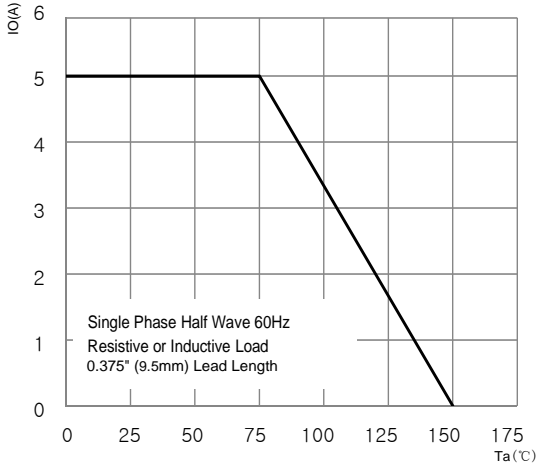


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

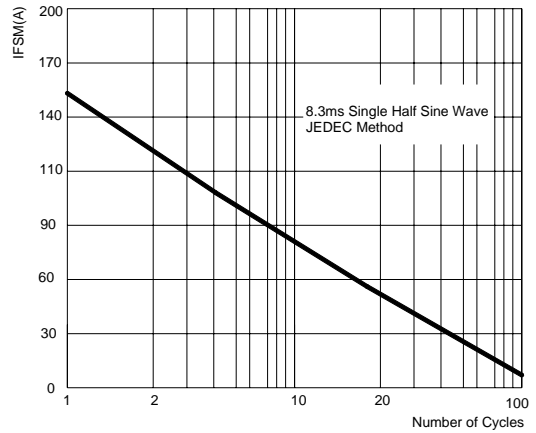


FIG.3: TYPICAL FORWARD CHARACTERISTICS

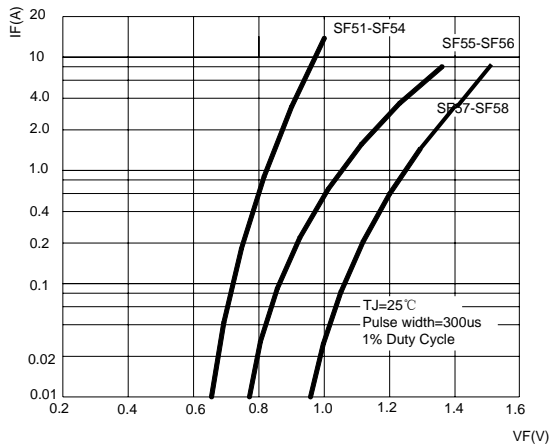


FIG.4: TYPICAL REVERSE CHARACTERISTICS

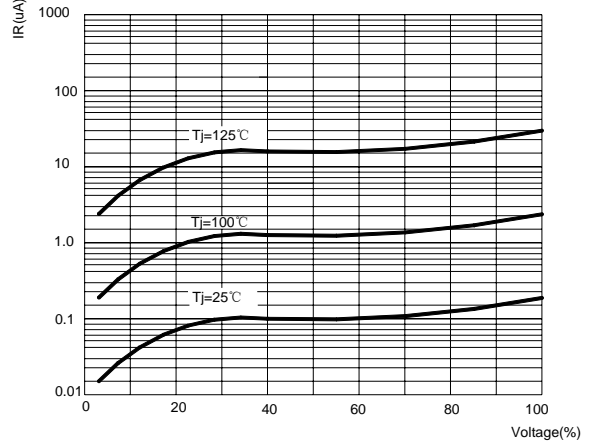


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

