

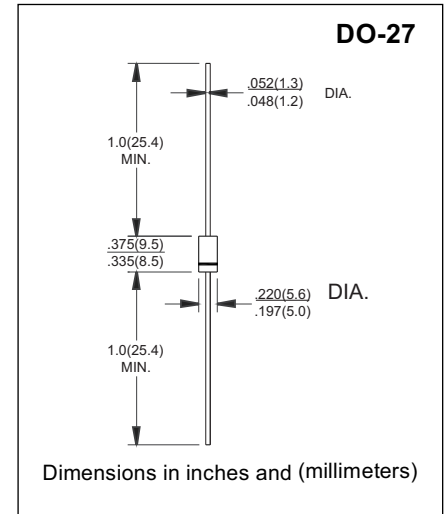
## SUPER FAST RECOVERY RECTIFIER

### FEATURES

- Low cost construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260 °C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

### MECHANICAL DATA

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



### 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% .

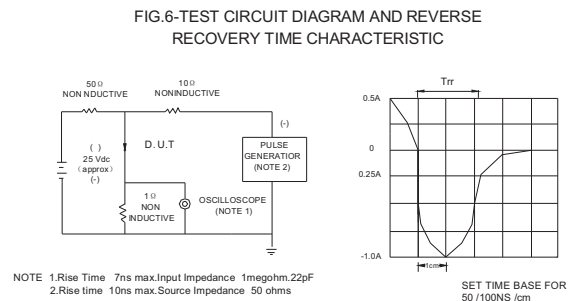
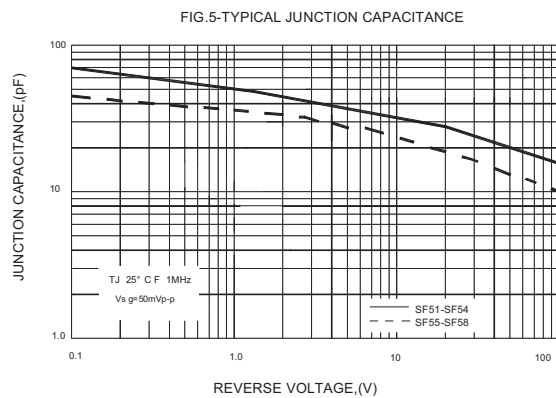
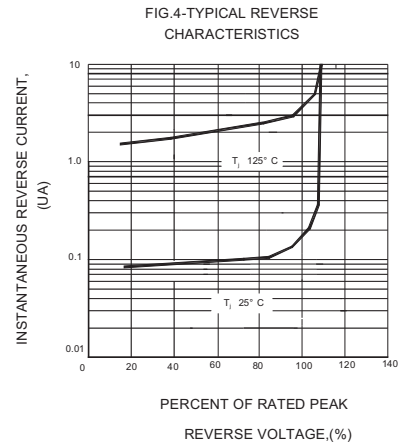
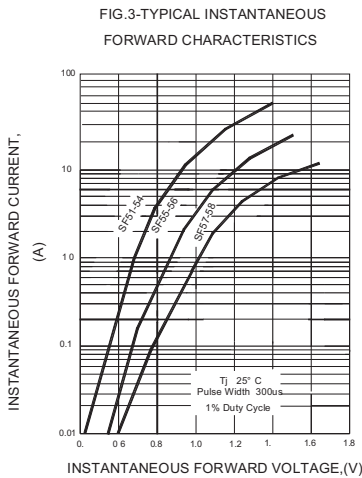
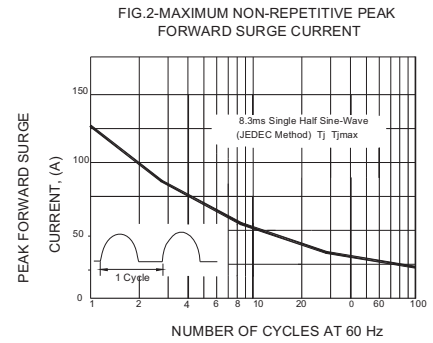
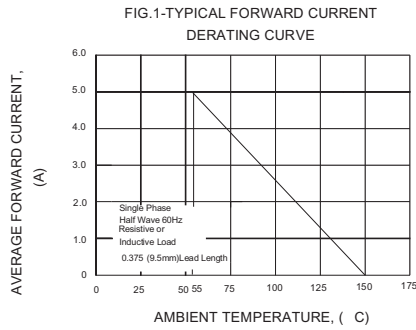
PARAMETER	SYMBOLS	SF51	SF52	SF53	SF54	SF55	SF56	SF57	SF58	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	600	Volts
Maximum Average Forward Rectified Current 0.375”(9.5mm) lead length at $T_A=55^{\circ}C$	$I_{(AV)}$	5.0								Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	125								Amps
Maximum Instantaneous Forward Voltage @ 5.0A	$V_F$	0.95			1.25		1.7			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A = 25^{\circ}C$ 5.0								$\mu A$
		$T_A = 125^{\circ}C$ 50								
Maximum Reverse Recovery Time Test conditions $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$	$t_{rr}$	35								ns
Typical Thermal Capavittance (Measured at 1.0MHz and applied rever voltage of 4.0V)	$C_J$	50				30				PF
Typical Thermal Resistance(NOTE 1)	$R_{\theta JA}$	30								$^{\circ}C/W$
Operating Junction Temperature Range	$T_J$	(-55 to +150)								$^{\circ}C$
Storage Temperature Range	$T_{STG}$	(-55 to +150)								$^{\circ}C$

#### Notes:

1. Thermal resistance from junction to ambient with .375”(9.5mm)lead length, PCB. mounted.

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### RATING AND CHARACTERISTIC CURVES SF51 - SF58



#### Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.