

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50--- 600 V

CURRENT: 5.0 A

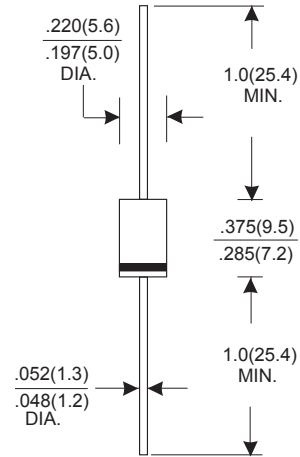
FEATURES

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

MECHANICAL DATA

- Case:JEDEC DO--27,molded plastic
- Terminals: Axial lead ,solderable per
- MIL- STD-202,Method 208
- Polarity: Color band denotes cathode
- Mounting position: Any

DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)Single phase,half wave,60 Hz,resistive or inductive load.

For capacitive load,derate by 20%.

		SF51	SF52	SF53	SF54	SF55	SF56	SF57	SF58	UNITS
Maximum recurrent 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	420	560	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 at $T_A=75^\circ\text{C}$	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0								A
Maximum Instantaneous Forward Voltage at 5.0A	V_F	1.0			1.3		1.7			V
Maximum reverse current at rated DC blocking voltage	@ $T_A=25$	5.0								μA
	@ $T_A=100$	100.0								
Maximum reverse recovery time (Note1)	t_{rr}	35								ns
Typical junction capacitance (Note2)	C_J	100								pF
Typical thermal resistance(Note3)	$R_{\theta JA}$	25								$^\circ\text{C/W}$
Operating junction temperature range	T_j	-65 ---- + 125								$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 ---- + 150								$^\circ\text{C}$

Note: 1.Reverse recovery 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 4.0V D.C.

3. Leads maintained at ambient temperature at a distance of 9.5mm from the case



RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM AVERAGE FORWARD CURRENT DERATING

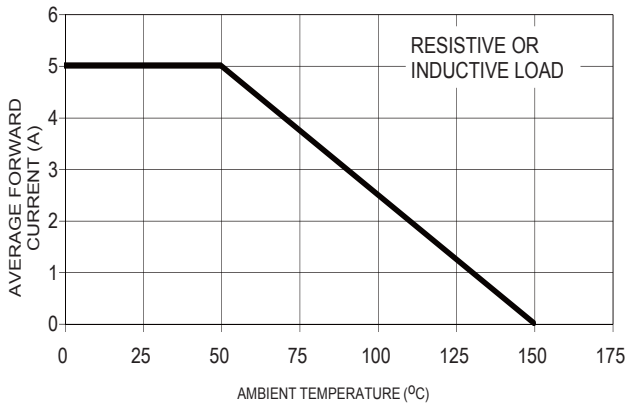


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

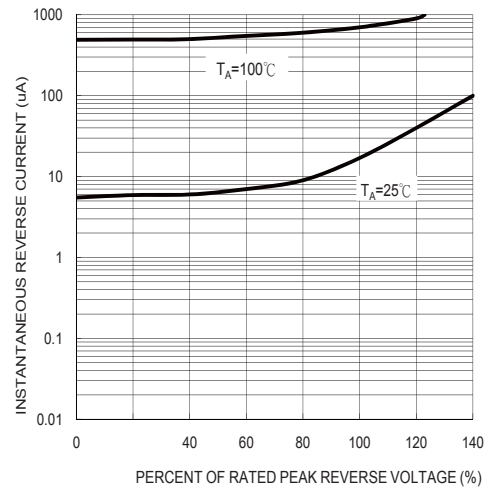


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

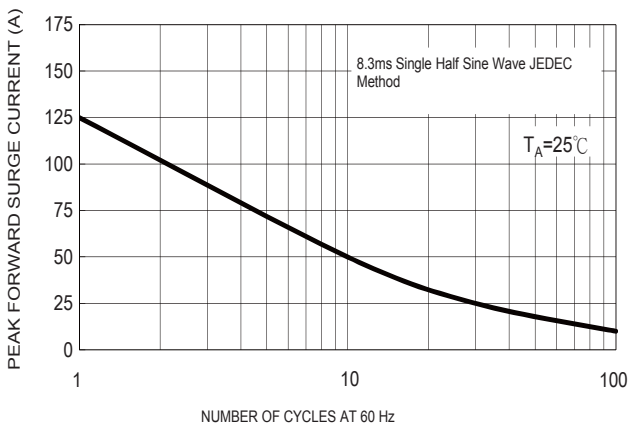


FIG.5.- TYPICAL FORWARD CHARACTERISTICS

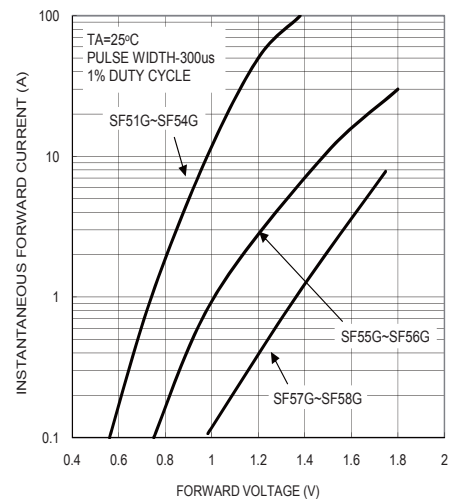


FIG. 6- TYPICAL JUNCTION CAPACITANCE

