

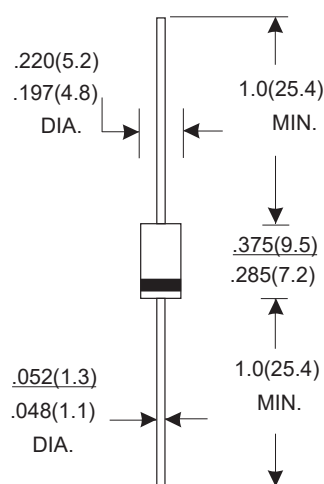
DO-27 Ultra-Fast Recovery Rectifier Diodes

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



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter		Symbol	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℃		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℃	I _R	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 _{θJA}	25								℃/W
Operating junction temperature range		T _j	-55 ---- + 125								℃
Storage temperature range		T _{STG}	-55 ---- + 150								℃

Note: 1.Reverse recovery condition $I_r=0.5A, I_r=1.0A, I_{rr}=0.25A$

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

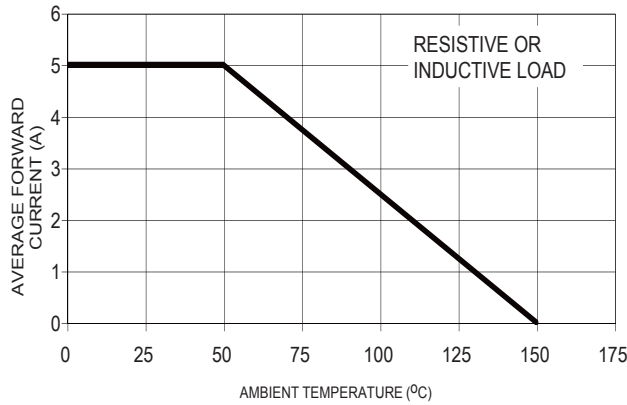


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

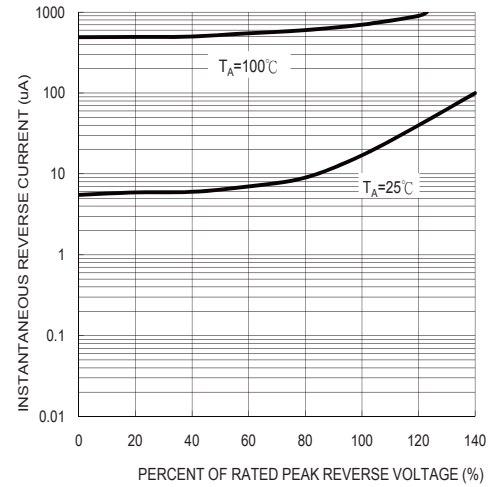


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

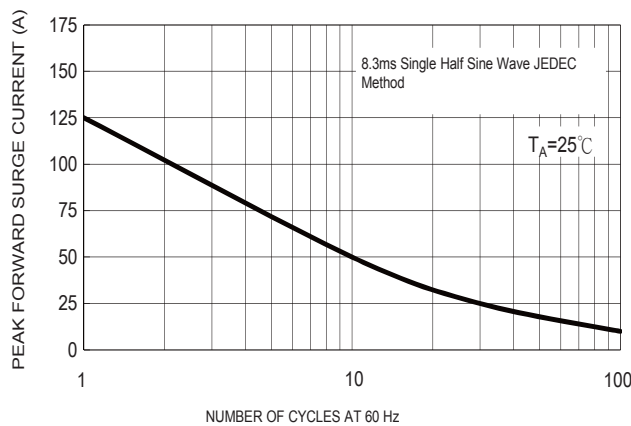


FIG.5- TYPICAL FORWARD CHARACTERISTICS

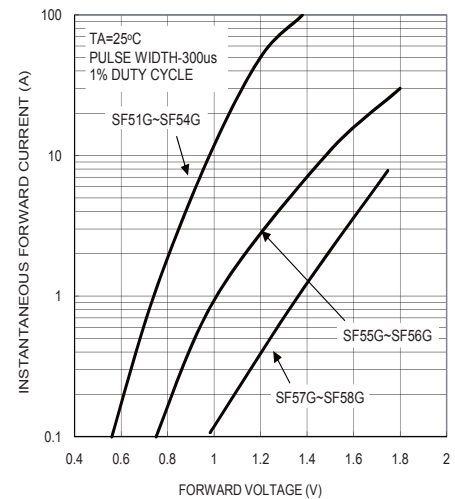


FIG. 6- TYPICAL JUNCTION CAPACITANCE

