

## SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50--- 600 V

CURRENT: 3.0 A

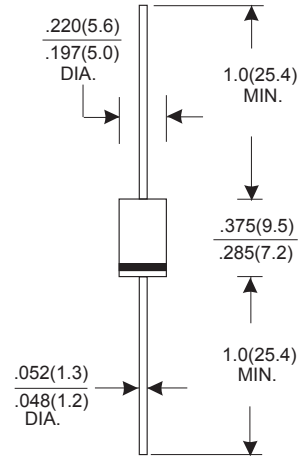
### FEATURES

- 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



## 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%.

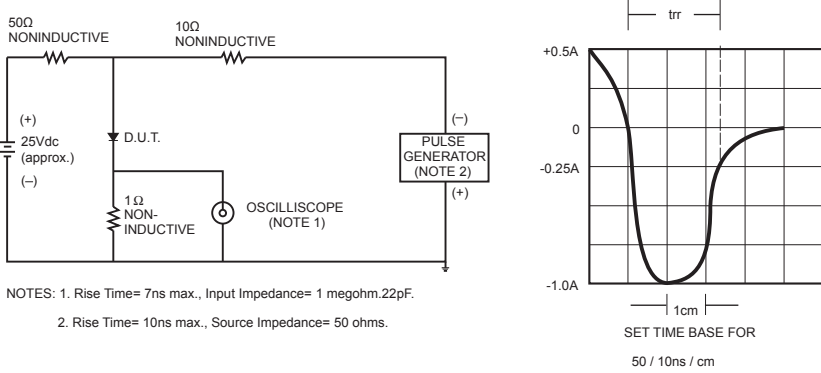
		SF31	SF32	SF33	SF34	SF35	SF36	SF37	SF38	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	560	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current, .375"(9.5mm) Lead Length at $T_A=75^\circ\text{C}$	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	125.0								A
Maximum Instantaneous Forward Voltage at 3.0A	$V_F$	1.0			1.3		1.7			V
Maximum reverse current at rated DC blocking voltage	@ $T_A=25$	5.0								$\mu\text{A}$
	@ $T_A=100$	50.0								
Maximum reverse recovery time (Note1)	$t_{rr}$	35								ns
Typical junction capacitance (Note2)	$C_J$	40				30				pF
Typical thermal resistance(Note3)	$R_{\theta JA}$	50								$^\circ\text{C}/\text{W}$
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  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$

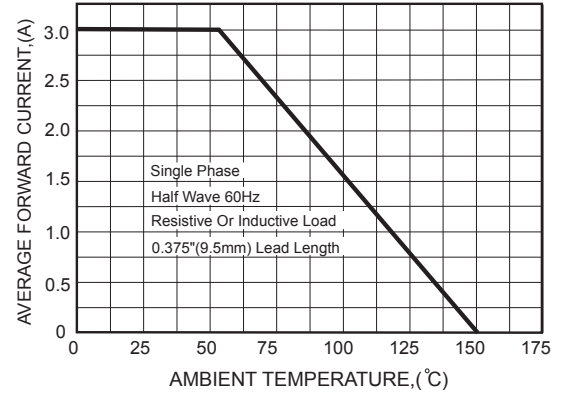
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

# RATINGS AND CHARACTERISTIC CURVES

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

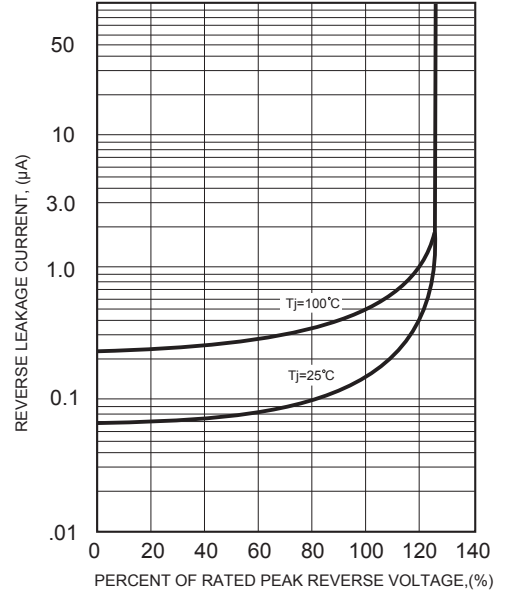
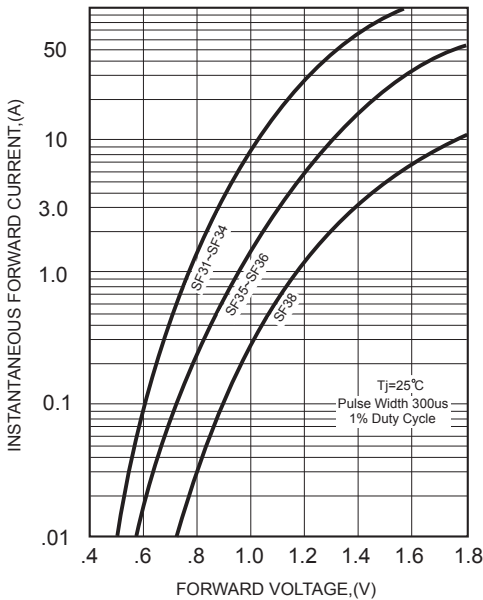


**FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.3-TYPICAL FORWARD CHARACTERISTICS**

**FIG.4-TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

**FIG.6-TYPICAL JUNCTION CAPACITANCE**

