

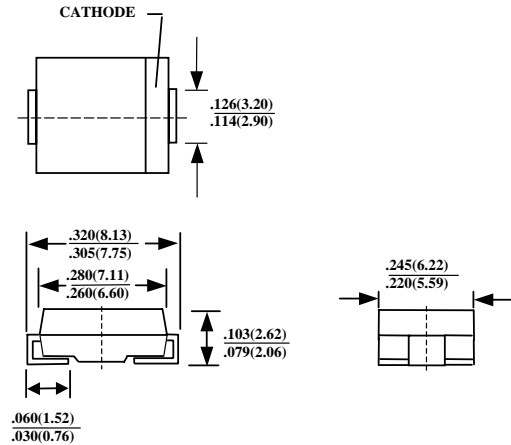
**3A SUPER FAST RECOVERY SURFACE MOUNT RECTIFIER**

**FEATURES**

- LOW PROFILE PACKAGE
- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY 94V-0
- IDEAL FOR SURFACE MOUNTED APPLICATION
- GLASS PASSIVATED CHIP JUNCTI
- BULIT-IN STRAIN RELIEF DESIGN
- SUPER FAST RECOVERY TIME FOR HIGH EFFICIENT
- HIGH TEMPERTURE SOLDERING : 250°C/10 SECONDS AT TERMINAL

**MECHANICAL DATA**

- CASE : JEDEC DO-214AA MOLDED PLAS BODY
- TERMINAL : SOLDER PLATED, SOLDERABLE PER MIL-STD-750 METHOD 2026
- POLARITY : COLOR BAND DENOTES CATHODE
- WEIGHT : 0.21 GRAMS



CASE : DO-214AB (SMC)  
DIMENSIONS IN INCHES AND (MILLIMETERS)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS  
RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED  
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.  
FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	SFS3A	SFS3B	SFS3D	SFS3E	SFS3G	SFS3H	SFS3J	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	50	100	200	300	400	500	600	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	35	70	140	210	280	350	420	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	50	100	200	300	400	500	600	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT AT $T_l=90^\circ\text{C}$	$I_O$	3.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	100							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_j$	25							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta JL}$	20							°C/W
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150							°C
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 150							°C

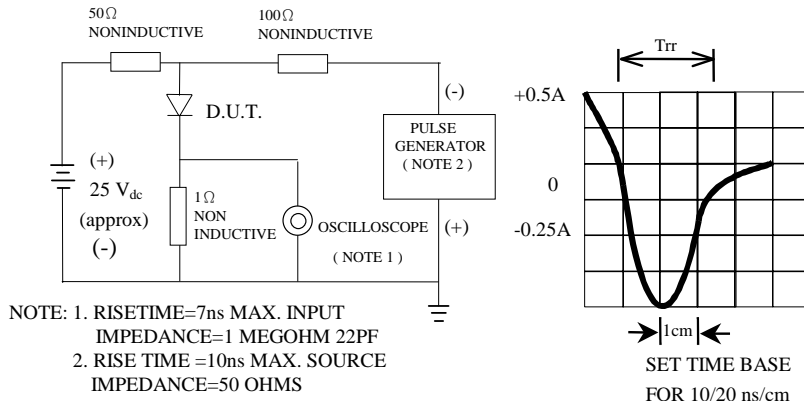
**ELECTRICAL CHARACTERISTICS ( $A_T, T_A = 25^\circ\text{C}$  UNLESS OTHERWISE NOTED)**

CHARACTERISTICS	SYMBOL	SFS3A	SFS3B	SFS3D	SFS3E	SFS3G	SFS3H	SFS3J	UNITS
MAXIMUM FORWARD VOLTAGE AT $I_O$ DC	$V_F$	0.95			1.25		1.85		V
MAXIMUM REVERSE CURRENT AT 25°C	$I_R$	10							μA
MAXIMUM REVERSE CURRENT AT 100°C	$I_R$	100							μA
MAXIMUM REVERSE RECOVERY TIME (NOTE3)	$T_{RR}$	35							nS
MARKING		SFS3A	SFS3B	SFS3D	SFS3E	SFS3G	SFS3H	SFS3J	

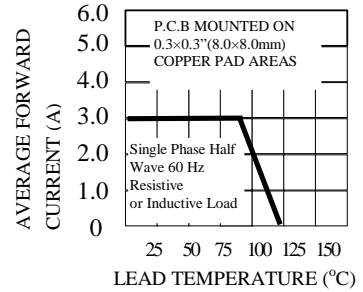
- NOTE : 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS  
2. THERMAL RESISTANCE FROM JUNCTION TO AMBIENT AND JUNCTION TO LEAD P.C.B. MOUNTED ON 0.3×0.3"(8.0×8.0mm) COPPER PAD AREAS  
3. REVERSE RECOVERY TEST CONDITIONS:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

# RATINGS AND CHARACTERISTIC CURVE SFS3A THRU SFS3J

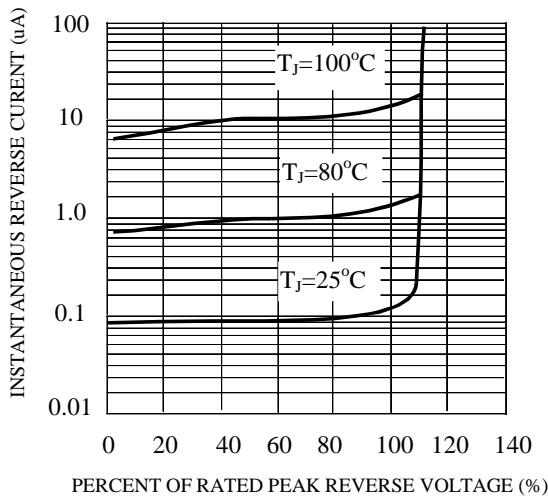
**FIG. 1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



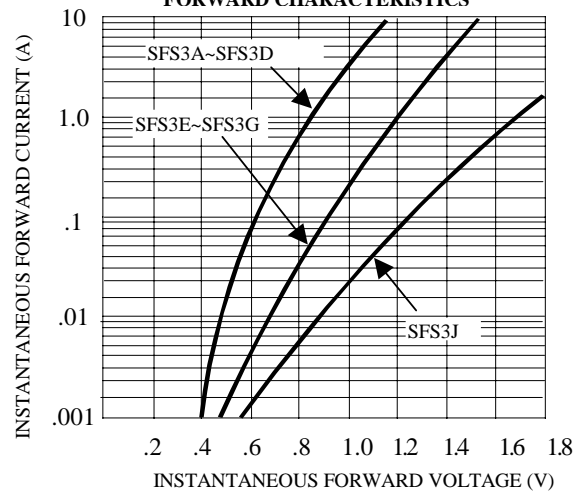
**FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE**



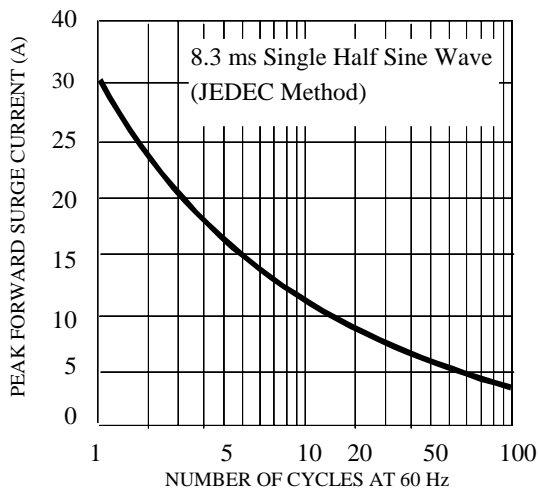
**FIG. 3-TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



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



**FIG. 6-TYPICAL JUNCTION CAPACITANCE**

