

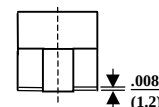
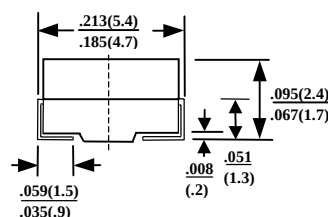
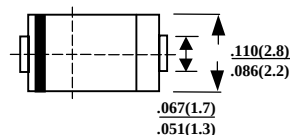
1A SURFACE MOUNT SUPER FAST RECOVERY RECTIFIERS

FEATURES

- FOR SURFACE MOUNTED APPLICATIONS
- LOW PROFILE PACKAGE
- BUILT-IN STRAIN RELIEF
- EASY PICK AND PLACE
- PLASTIC MATERIAL USED CARRIES UNDERWRITERS
LABORATORY CLASSIFICATION 94 V-0
- SUPER FAST SWITCHING
- HIGH TEMPERATURE SOLDERING : 250°C/10 SECONDS AT
TERMINALS

MECHANICAL DATA

- CASE : MOLDED PLASTIC
- TERMINALS : SOLDER PLATED
- POLARITY : INDICATED BY CATHODE BAND
- WEIGHT : 0.064 GRAMS



CASE-FM-1

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	SFM10-005	SFM10-01	SFM10-02	SFM10-03	SFM10-04	SFM10-05	SFM10-06	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 TL=90°C	I _O	1.0							A
MAXIMUM OVERLOAD SURGE 8.3ms SINGLE HALF SINE-WAVE	I _{FSM}	30							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C _J	15			10				PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	θ _{JL}	30							°C/W
STORAGE TEMPERATURE RANGE	T _{STG}	-55 TO + 150							°C
OPERATING TEMPERATURE RANGE	T _{OP}	-55 TO + 125							°C

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

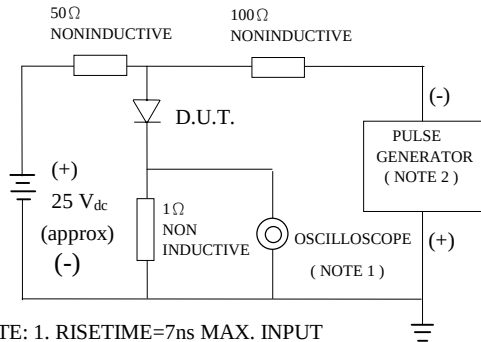
CHARACTERISTICS	SYMBOL	SFM10-005	SFM10-01	SFM10-02	SFM10-03	SFM10-04	SFM10-05	SFM10-06	UNITS	
MAXIMUM FORWARD VOLTAGE AT 1.0A AND 25°C	V _F	0.95			1.25		1.85		V	
MAXIMUM REVERSE CURRENT AT 25°C	I _R	10								μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	T _{RR}	35								nS
MARKING		S0	S1	S2	S3	S4	S5	S6		

NOTE :

1. MEASURED AT 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V
2. THERMAL RESISTANCE FROM JUNCTION TO TERMINAL 5.0mm² (.013 mm THICK) LAND 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 SFM10-005 THRU SFM10-06

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



NOTE: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1 MEGOHM 22PF
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50 OHMS

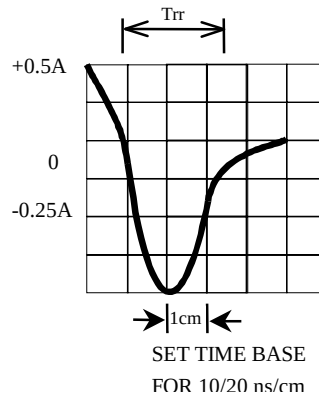


FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

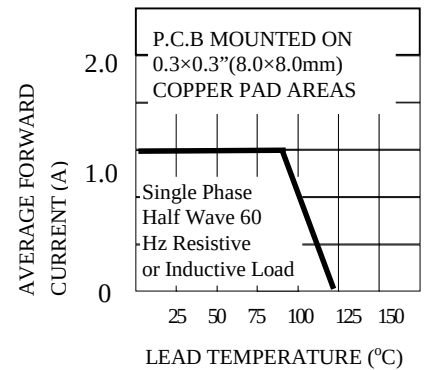


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

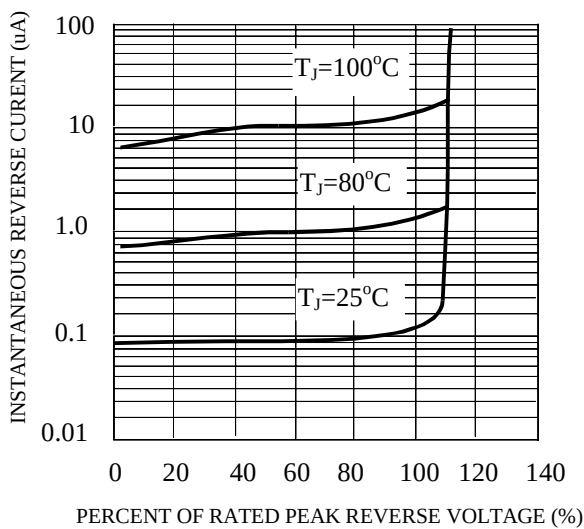


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

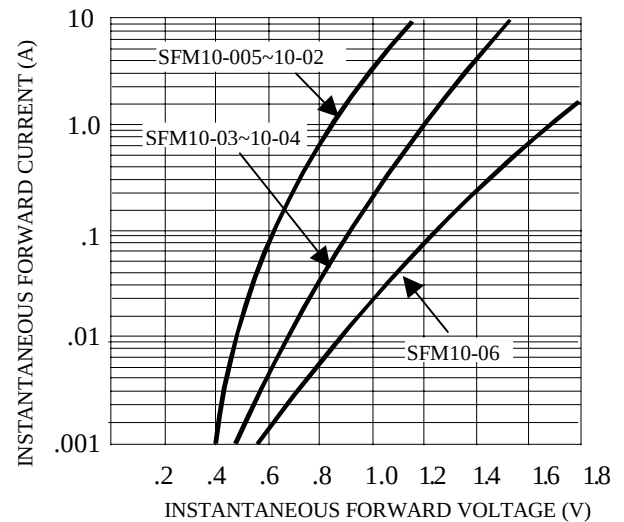


FIG. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

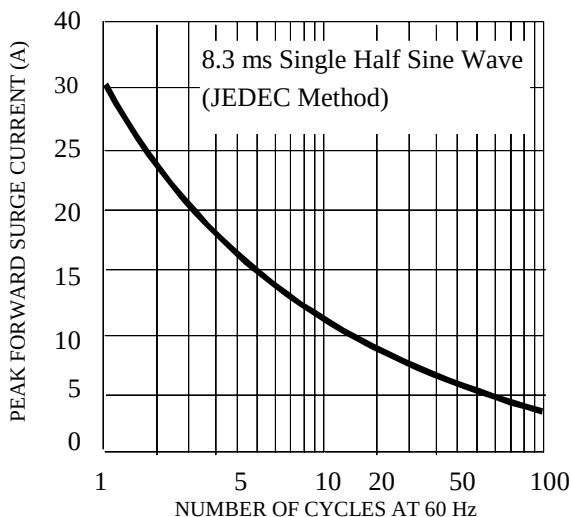


FIG. 6-TYPICAL JUNCTION CAPACITANCE

