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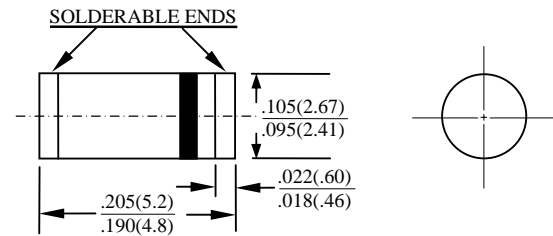
1A SURFACE MOUNT FAST RECOVERY RECTIFIERS FSM10-005 THRU FSM10-10

FEATURES

- FAST SWITCHING
- GLASS PASSIVATED DEVICE
- IDEAL FOR SURFACE MOUNTED APPLICATIONS
- LOW LEAKAGE CURRENT
- FAST SWITCHING TIME

MECHANICAL DATA

- CASE: TRANSFER MOLDED MELF, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: SOLDERABLE PER MIL-STD-750, METHOD 2026
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.135 GRAMS



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	FSM10 -005	FSM10 -01	FSM10 -02	FSM10 -04	FSM10 -06	FSM10 -08	FSM10 -10	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT AT $T_L=75^\circ\text{C}$	I_O	1.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	30							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	15							PF
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150							°C
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 125							°C

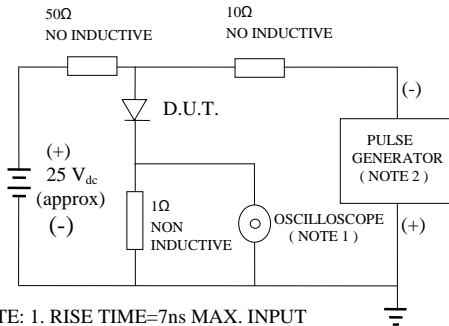
ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	FSM10 -005	FSM10 -01	FSM10 -02	FSM10 -04	FSM10 -06	FSM10 -08	FSM10 -10	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	1.3							V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	5							μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 2)	T_{RR}	150			250		500		nS

- NOTE:
1. MEASURED AT 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V
 2. THERMAL RESISTANCE FROM JUNCTION TO TERMINAL 5.0mm^2 (.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 FSM10-005 THRU FSM10-10

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



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

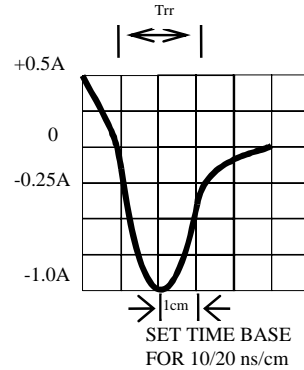


Fig. 2-MAXIMUM CURRENT DERATING CURVE

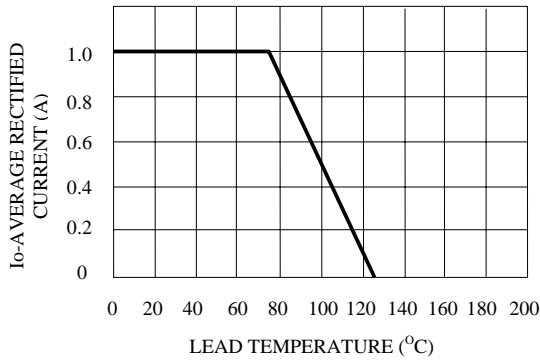


Fig. 5-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

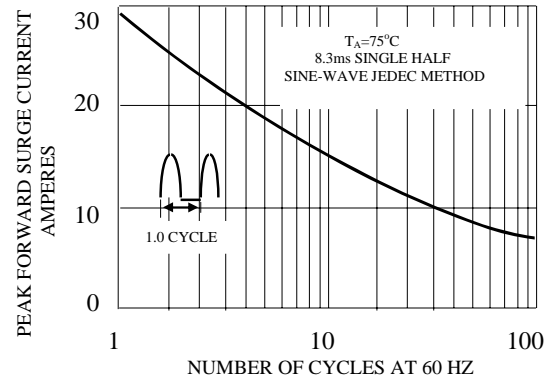


FIG. 3-TYPICAL JUNCTION CAPACITANCE

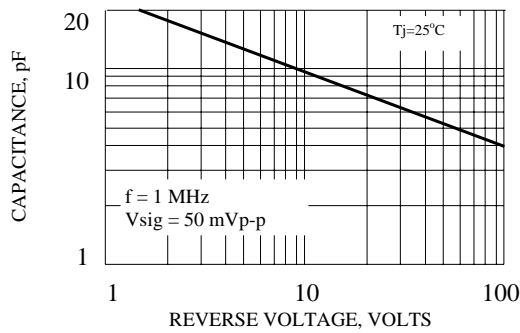


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

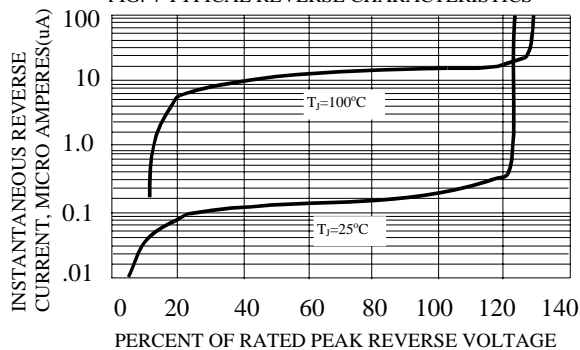


FIG. 6-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

