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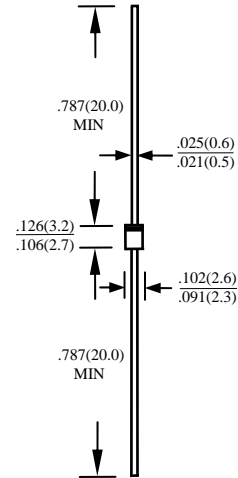
## 1A MINIATURE FAST RECOVERY PLASTIC RECTIFIER R005-LFR THRU R10-LFR

### FEATURES

- FAST RECOVERY TIMES
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- DIFFUSED JUNCTION
- LOW COST
- HIGH SURGE CURRENT CAPABILITY
- ROHS

### MECHANICAL DATA

- CASE: TRANSFER MOLDED, R1, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.19 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	R005-LFR	R01-LFR	R02-LFR	R04-LFR	R06-LFR	R08-LFR	R10-LFR	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT 0.375"(9.5mm) LEAD LENGTH AT TA=25°C	I <sub>O</sub>	1.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I <sub>FSM</sub>	25							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C <sub>J</sub>	15							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	R <sub>θja</sub>	50							°C/W
STORAGE TEMPERATURE RANGE	T <sub>STG</sub>	-55 TO + 150							°C
OPERATING TEMPERATURE RANGE	T <sub>OP</sub>	-55 TO + 125							°C

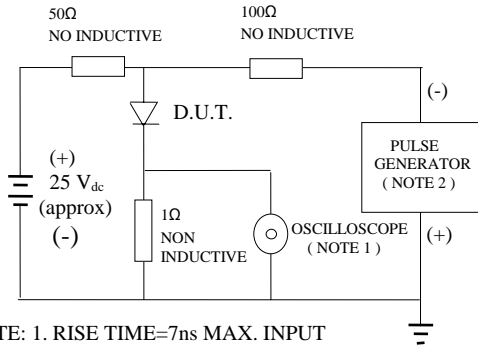
### ELECTRICAL CHARACTERISTICS (A<sub>T</sub> T<sub>A</sub> =25°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	R005-LFR	R01-LFR	R02-LFR	R04-LFR	R06-LFR	R08-LFR	R10-LFR	UNITS
MAXIMUM FORWARD VOLTAGE AT I <sub>O</sub> DC	V <sub>F</sub>	1.3							V
MAXIMUM REVERSE CURRENT AT 25°C	I <sub>R</sub>	5							μA
MAXIMUM REVERSE CURRENT AT 100°C	I <sub>R</sub>	50							μA
MAXIMUM REVERSE RECOVERY TIME (NOTE3)	T <sub>RR</sub>	150			250		500		nS

- NOTE :
1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
  2. BOTH LEADS ATTACHED TO HEAT SINK 20x20x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm
  3. REVERSE RECOVERY TEST CONDITIONS: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

# RATINGS AND CHARACTERISTIC CURVE R005-LFR THRU R10-LFR

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

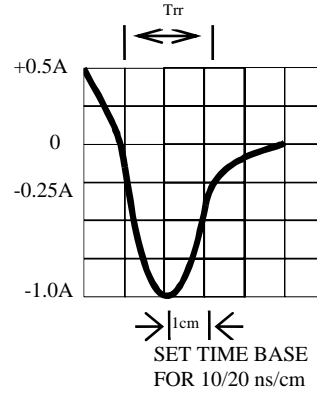


Fig. 2-MAXIMUM CURRENT DERATING CURVE

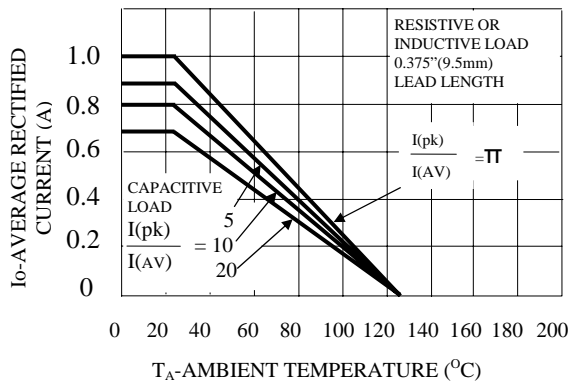


Fig. 5-MAXIMUM FORWARD SURGE NUMBER OF CYCLES

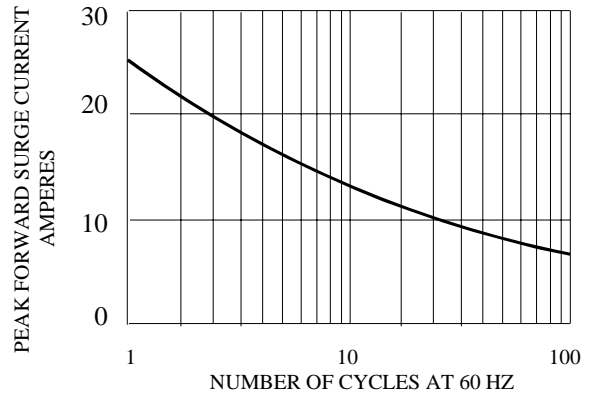


FIG. 3-TYPICAL JUNCTION CAPACITANCE

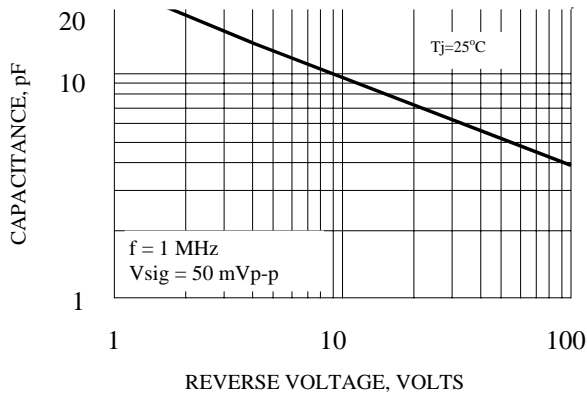


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

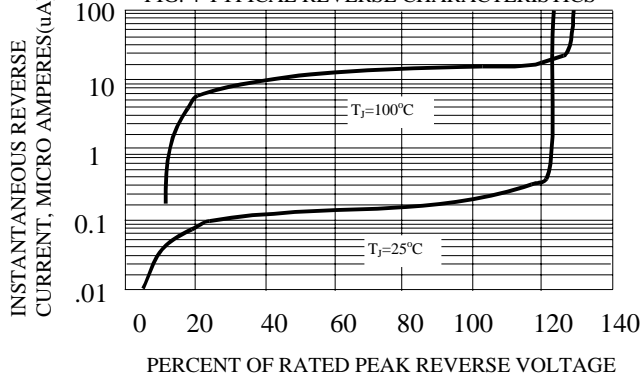


FIG. 6-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

