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1.5A GENERAL PURPOSE PLASTIC RECTIFIER

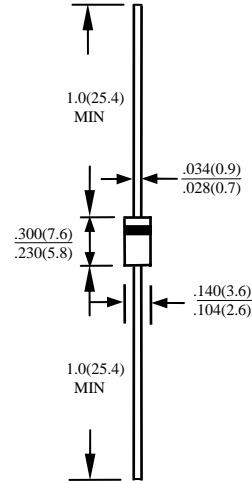
IN5391-LFR THRU IN5399-LFR

FEATURES

- HIGH SURGE CURRENT CAPABILITY
- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY FLAMMABILITY CLASSIFICATION 94V-0
- EXCEEDS ENVIRONMENTAL STANDARDS OF MIL-STD-19500
- 1.5 AMPERE OPERATION AT $T_L=70^{\circ}\text{C}$ WITH NO THERMAL RUNAWAY
- TYPICAL IR LESS THAN $1\mu\text{A}$
- VOID-FREE MOLDED PLASTIC
- HIGH TEMPERATURE SOLDERING GUARANTEED: $250^{\circ}\text{C}/10\text{S}$ /0.375" , (9.5mm) LEAD LENGTH/5 LBS. (2.3KG) TENSION
- ROHS

MECHANICAL DATA

- CASE: MOLDED PLASTIC, DO15, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINAL: AXIAL LEADS, SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: COLOR BAND DENOTES CATHODE
- MOUNTING POSITION: ANY
- WEIGHT: 0.4 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 | IN5391-LF | IN5392-LF | IN5393-LF | IN5395-LF | IN5397-LF | IN5398-LF | IN5399-LF | UNITS | |
|--|-----------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-------|-----------------------------|
| | | R | R | R | R | R | R | R | | |
| 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 0.375"(9.5mm) LEAD LENGTH AT $T_L=70^{\circ}\text{C}$ | I_O | 1.5 | | | | | | | | A |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | I_{FSM} | 50 | | | | | | | | A |
| TYPICAL THERMAL RESISTANCE (NOTE 2) | $R_{\theta ja}$ | 40 | | | | | | | | $^{\circ}\text{C}/\text{W}$ |
| TYPICAL JUNCTION CAPACITANCE (NOTE 1) | C_j | 15 | | | | | | | | PF |
| STORAGE TEMPERATURE RANGE | T_{STG} | - 55 TO + 175 | | | | | | | | $^{\circ}\text{C}$ |
| OPERATING TEMPERATURE RANGE | T_{OP} | - 55 TO + 175 | | | | | | | | $^{\circ}\text{C}$ |

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

| CHARACTERISTICS | SYMBOL | IN5391-LF | IN5392-LF | IN5393-LF | IN5395-LF | IN5397-LF | IN5398-LF | IN5399-LF | UNITS | |
|--|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------|---------------|
| | | R | R | R | R | R | R | R | | |
| MAXIMUM FORWARD VOLTAGE AT I_O DC | V_F | 1.1 | | | | | | | | V |
| MAXIMUM REVERSE CURRENT AT 25°C | I_R | 5 | | | | | | | | μA |
| MAXIMUM REVERSE CURRENT AT 100°C | I_R | 50 | | | | | | | | μA |

NOTE: 1. MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

2. BOTH LEADS ATTACHED TO HEAT SINK $35 \times 35 \times 1\text{t}(\text{mm})$ COPPER PLATE AT LEAD LENGTH 5mm

RATINGS AND CHARACTERISTIC CURVE 1N5391-LFR THRU 1N5399-LFR

FIG. 1- FORWARD CURRENT DERATING CURVE

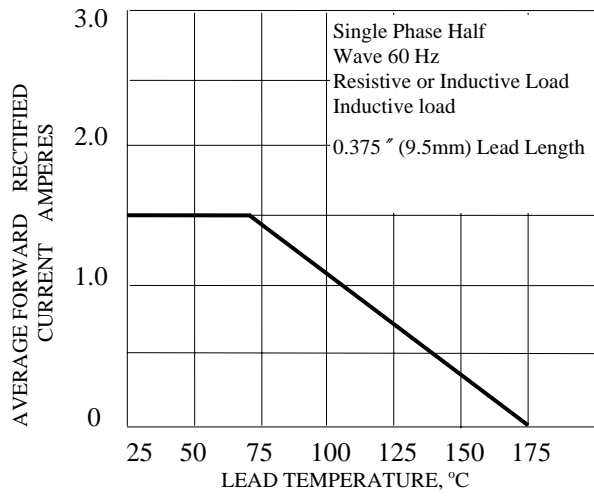


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

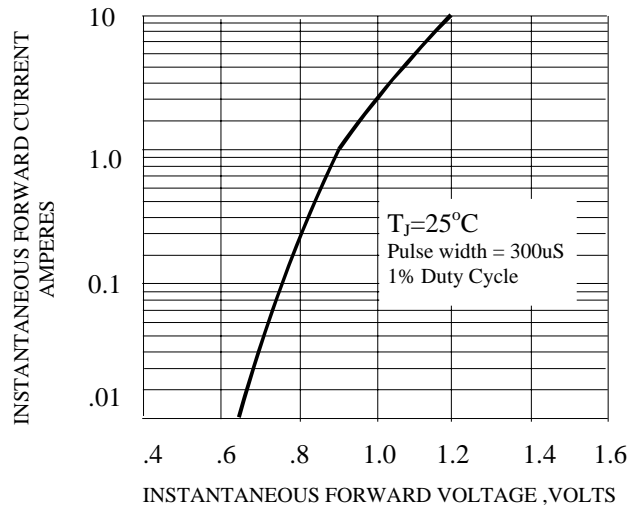


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

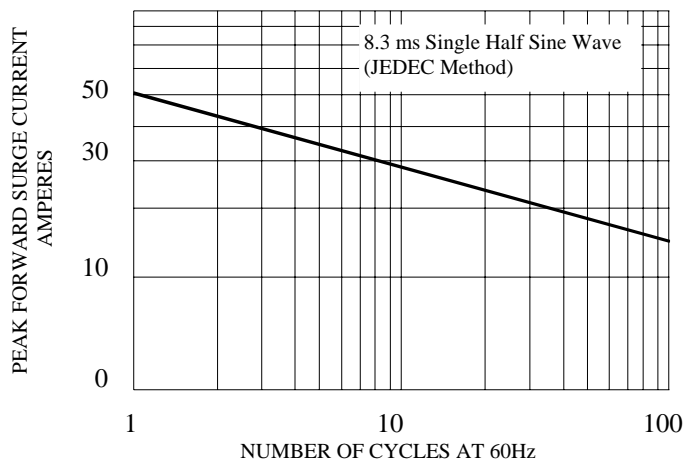


FIG. 4-TYPICAL JUNCTION CAPACITANCE

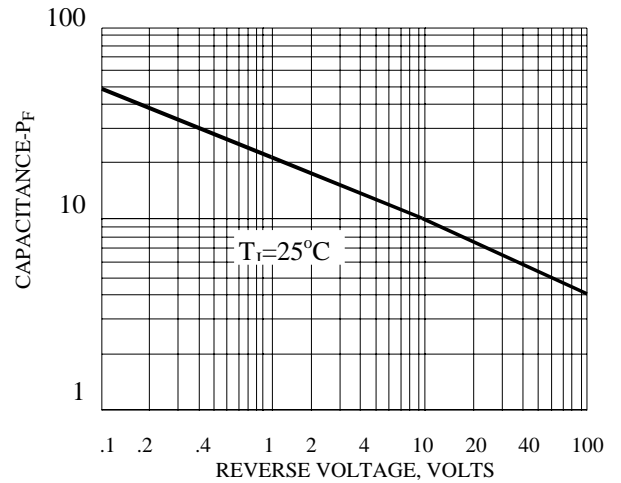


FIG. 5-TYPICAL REVERSE CAPACITANCE

