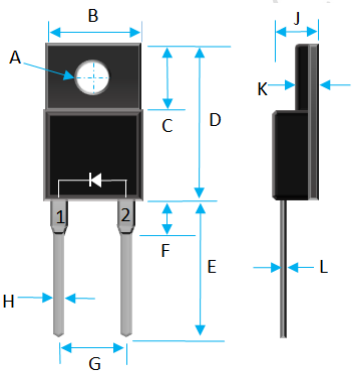
# EF5A05F THRU EF5A60F SPECIFICATIONS

Rev. A

## 5.0A GLASS PASSIVATED EFFICIENCY FAST RECTIFIERS-50-600V




| Dim. | Value Inch[mm] Min. | Max. |
|---|---|---|
| A | 0.118 [3.0] | 0.134 [3.4] |
| B | 0.381 [9.7] | 0.406[10.3] |
| C | 0.248 [6.3] | 0.272 [6.9] |
| D | 0.583 [14.8] | 0.606 [15.4] |
| E | 0.512 [13.0] | 0.548 [13.9] |
| F | --- | 0.161 [4.1] |
| G | 0.195 [4.95] | 0.204 [5.18] |
| H | 0.011 [0.3] | 0.035 [0.9] |
| J | 0.165 [4.2] | 0.189 [4.8] |
| K | 0.099 [2.5] | 0.130 [3.3] |
| L | --- | 0.032 [0.8] |

### PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. GLASS PASSIVATED CHIP JUNCTION
3. LOW LEAKAGE
4. LOW FORWARD VOLTAGE DROP
5. HIGH SURGE CURRENT CAPABILITY
6. CASE: JEDEC ITO-220AC, MOLDED PLASTIC
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. POLARITY: AS MARKED
9. WEIGHT: 1.7 GRAMS
10. LEADS: SOLDERABILITYPER MIL-STD-202 METHOD 208
11. RoHS, SUFFIX "-H" INDICATES HALOGEN FREE PARTS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +150°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

| RATINGS | SYMBOL | VALUE | UNITS |
|---|---|---|---|
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT @ 25°C | $I_O$ | 5 | A |
| PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | $I_{FSM}$ | 80 | A |
| TYPICAL JUNCTION CAPACITANCE (NOTE2) | $C_J$ | 30 | pF |
| MAXIMUM REVERSE CURRENT @ 25℃ | $I_R$ | 5 | uA |
| MAXIMUM REVERSE CURRENT @ 125℃ | $I_R$ | 200 | uA |
| MAXIMUM REVERSE RECOVERY TIME (NOTE1) | $T_{RR}$ | 25 | nS |

1. REVERSE RECOVERY TIME TEST CONDITION, $I_F$=0.5A, $I_R$=1.0A, $I_{RR}$=0.25A
2. MEASURED @ 1 MHZ AND APPLIED REVERSE VOLTAGE 0F 4.0 VOLTS
3. MAXIMUM FORWARD VOLTAGE @ $I_o$

| PART NUMBER | MAX RECURRENT PK REV VOLTAGE $V_{RRM}$ (V) | MAX RMS VOLTAGE $V_{RMS}$ (V) | MAX DC BLOCKING VOLTAGE $V_{DC}$ (V) | MAX FWD VOLTAGE $V_F$ (V) | MARKING |
|---|---|---|---|---|---|
| EF5A05F | 50 | 35 | 50 | 0.98 | EF5A05F |
| EF5A10F | 100 | 70 | 100 | 0.98 | EF5A10F |
| EF5A20F | 200 | 140 | 200 | 0.98 | EF5A20F |
| EF5A40F | 400 | 280 | 400 | 1.25 | EF5A40F |
| EF5A60F | 600 | 420 | 600 | 1.9 | EF5A60F |

## RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

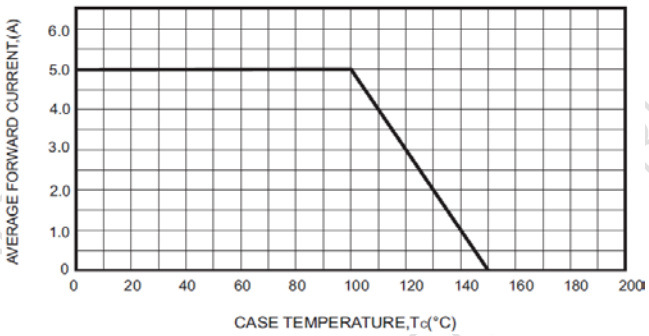



FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

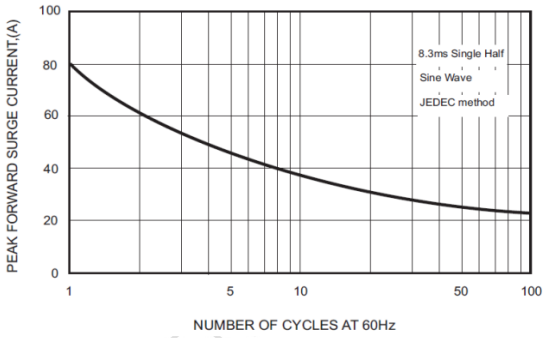



FIG.3-TYPICAL FORWARD CHARACTERISTICS

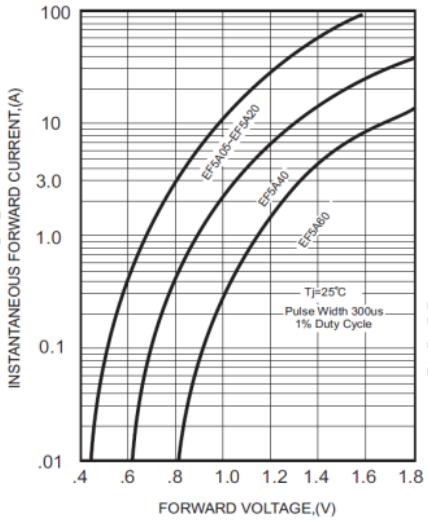



FIG.4 - TYPICAL REVERSE CHARACTERISTICS

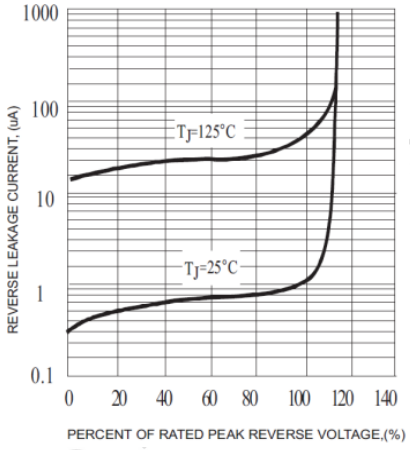
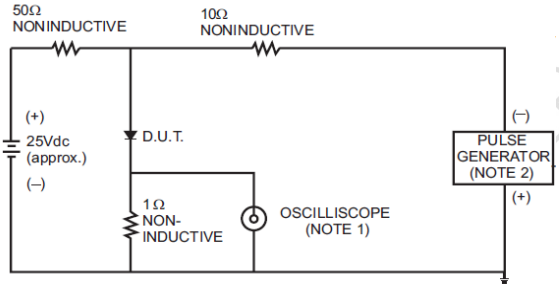
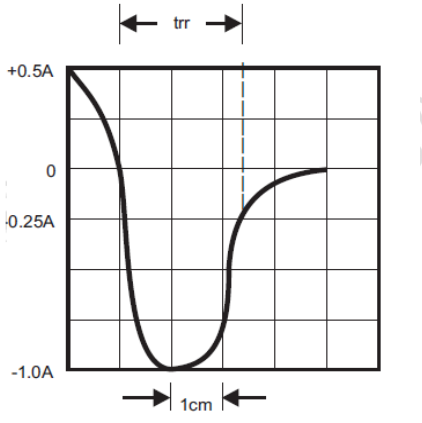



FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS




NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.




SET TIME BASE FOR

50 / 10ns / cm