

10.0A 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 | 0.095 [2.41] | 0.105 [2.67] |
| H | 0.019 [0.50] | 0.028 [0.7] |
| 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-220AB, MOLDED PLASTIC
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. POLARITY: AS MARKED
9. WEIGHT: 1.7 GRAMS
10. LEADS: SOLDERABILITY PER 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 | 10 | 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°C | I_R | 5 | uA |
| MAXIMUM REVERSE CURRENT @ 125°C | I_R | 250 | 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 OF 4.0 VOLTS
3. MAXIMUM FORWARD VOLTAGE @ I_o
4. DUAL RECTIFIER CONSTRUCTION, POSITIVE CENTER TAP, 5.0A HALF WAVE AND 10.0A FULL WAVE RECTIFICATION

| 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 |
|-------------|--|-------------------------------|--------------------------------------|---------------------------|-----------|
| EF1005FCT | 50 | 35 | 50 | 0.98 | EF1005FCT |
| EF1010FCT | 100 | 70 | 100 | 0.98 | EF1010FCT |
| EF1020FCT | 200 | 140 | 200 | 0.98 | EF1020FCT |
| EF1040FCT | 400 | 280 | 400 | 1.25 | EF1040FCT |
| EF1060FCT | 600 | 420 | 600 | 1.9 | EF1060FCT |

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

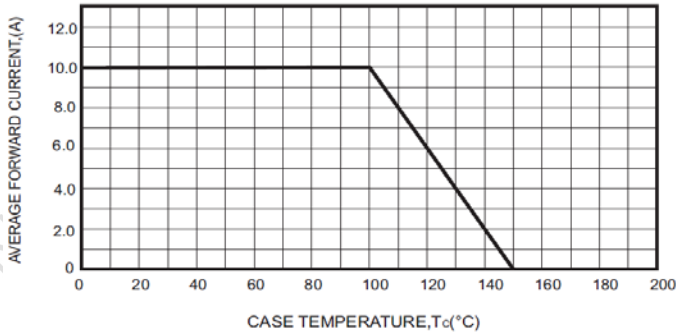


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

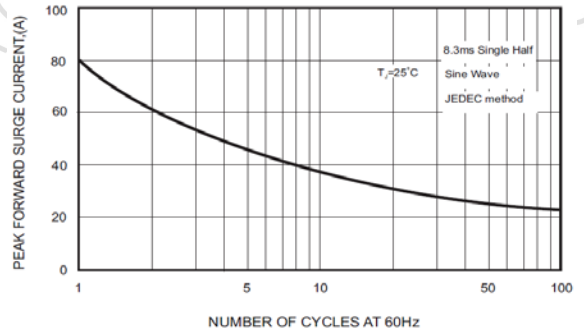


FIG.3-TYPICAL FORWARD CHARACTERISTICS

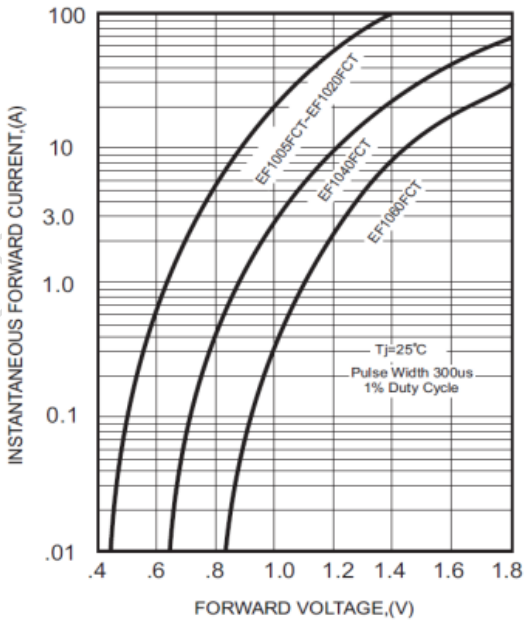


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

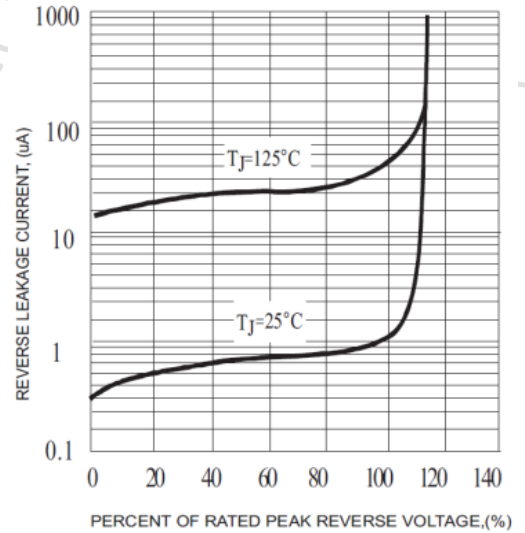
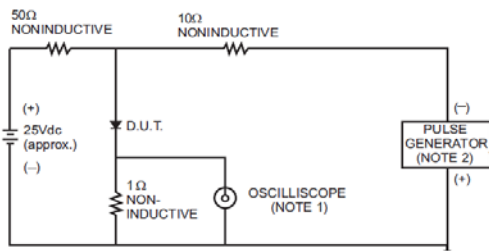


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

