



EF5A05F THRU EF5A60F SPECIFICATIONS

Rev. A

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

The diagram illustrates the mechanical specifications of a 1N4001 rectifier. The top view shows a square body with a central circular mounting hole. Dimensions include: A (hole diameter), B (body width), C (body height), D (total height), E (lead length), F (lead spacing), G (lead width), and H (lead thickness). The side view shows the profile of the device with dimensions J (lead length), K (lead thickness), and L (lead pitch). The leads are labeled 1 and 2, indicating polarity.

Value Inch[mm]		
Dim.	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: 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	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°C	I_R	5	uA
MAXIMUM REVERSE CURRENT @ 125°C	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 OF 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

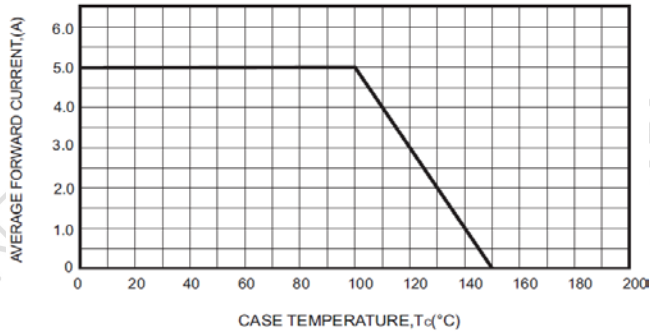


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

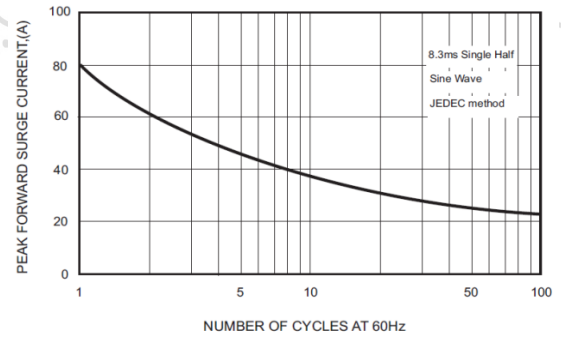


FIG.3-TYPICAL FORWARD CHARACTERISTICS

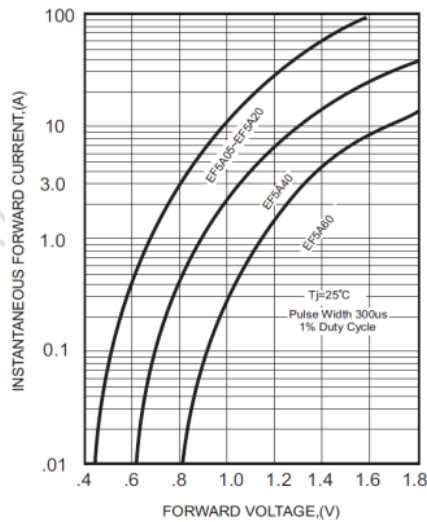


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

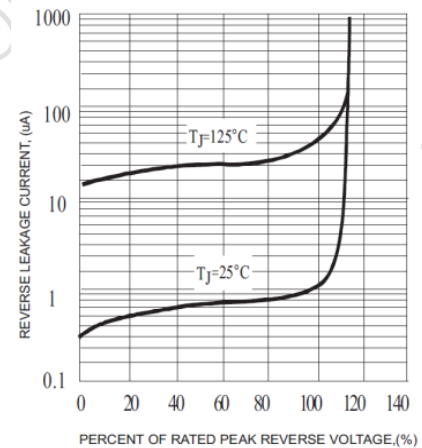
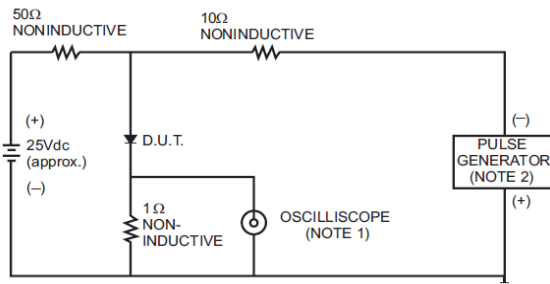


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

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

