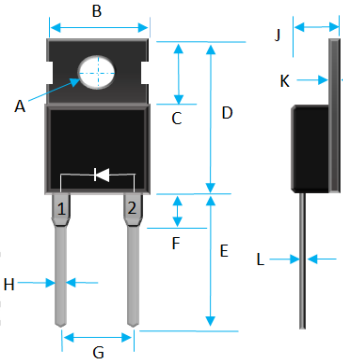




EF5A05 THRU EF5A60 SPECIFICATIONS

Rev. A

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



The diagram shows a top and side view of a TO-220AC rectifier. The top view labels dimensions A (mounting hole diameter), B (body width), C (body height), D (total height), E (lead height), F (lead spacing), G (lead width), and H (lead length). The side view labels dimensions J (lead hole diameter), K (body thickness), and L (lead length). The leads are numbered 1 and 2, with lead 1 being the cathode and lead 2 being the anode.

Value Inch[mm]		
Dim.	Min.	Max.
A	0.139 [3.55]	---
B	0.387 [9.85]	0.419 [10.66]
C	0.226 [5.75]	0.269 [6.85]
D	0.548 [13.93]	0.624 [15.87]
E	0.50 [12.70]	---
F	---	0.177 [4.50]
G	0.195[4.95]	0.204[5.18]
H	0.019 [0.50]	0.038 [0.96]
J	0.163 [4.16]	0.196 [5.00]
K	0.045 [1.15]	0.054 [1.39]
L	---	0.025 [0.65]

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 TO-220AC, MOLDED PLASTIC
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. POLARITY: AS MARKED
9. WEIGHT: 2.05 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
EF5A05	50	35	50	0.98	EF5A05
EF5A10	100	70	100	0.98	EF5A10
EF5A20	200	140	200	0.98	EF5A20
EF5A40	400	280	400	1.25	EF5A40
EF5A60	600	420	600	1.9	EF5A60



EF5A05 THRU EF5A60 SPECIFICATIONS

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RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

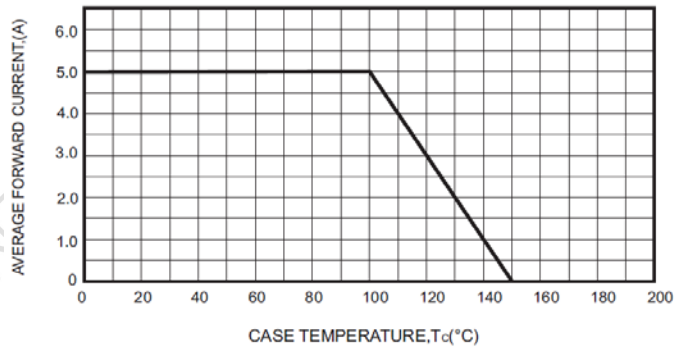


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

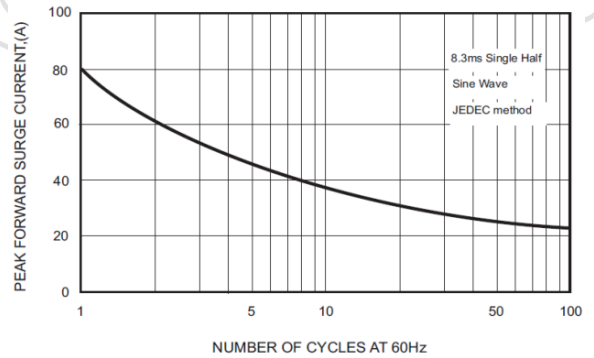


FIG.3-TYPICAL FORWARD CHARACTERISTICS

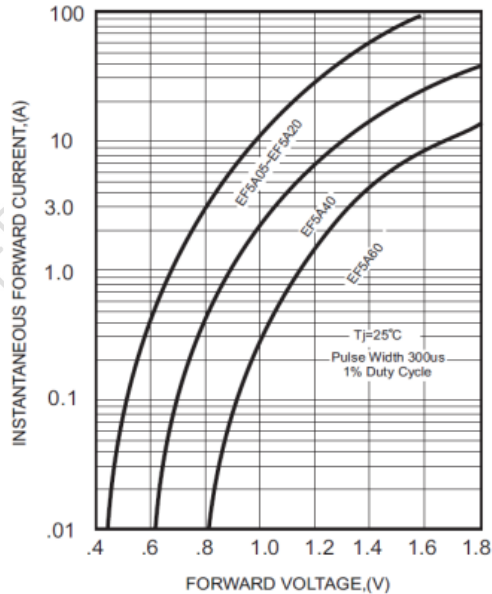


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

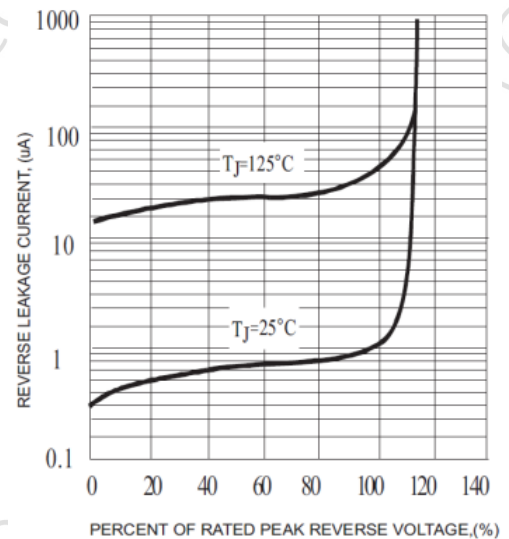
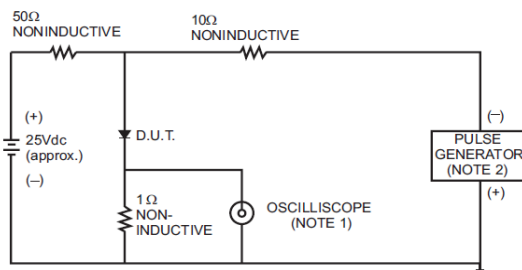


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

