3JH45

Fast Recovery Rectifier

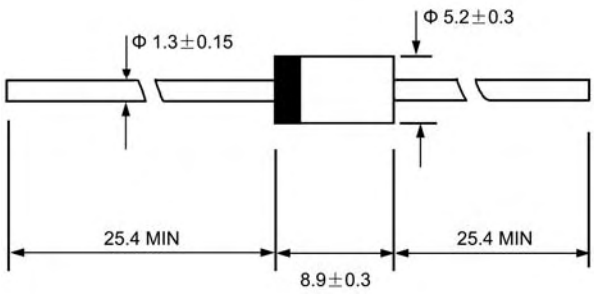
VOLTAGE RANGE: 600 V
CURRENT: 3.0 A



Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon,Alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

DO - 27



Dimensions in millimeters

Mechanical Data

- ◇ Case:JEDEC DO-27,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight:0.041 ounces,1.15 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		3JH45	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	3.0	A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	200.0	A
Maximum instantaneous forw ard voltage @ 3.0 A	V_F	1.3	V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	10.0 100.0	μA
Maximum reverse recovery time (Note1)	t_{rr}	250	ns
Typical junction capacitance (Note2)	C_J	32	pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	22	℃/W
Operating junction temperature range	T_J	- 55---- +150	℃
Storage temperature range	T_{STG}	- 55---- +150	℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

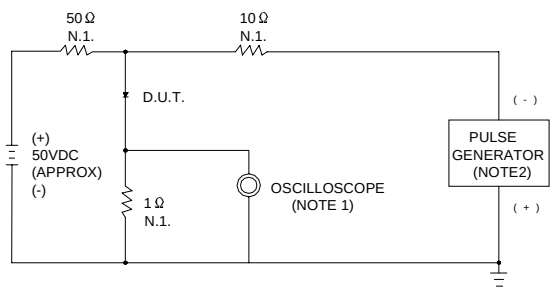
3. Thermal resistance from junction to ambient.

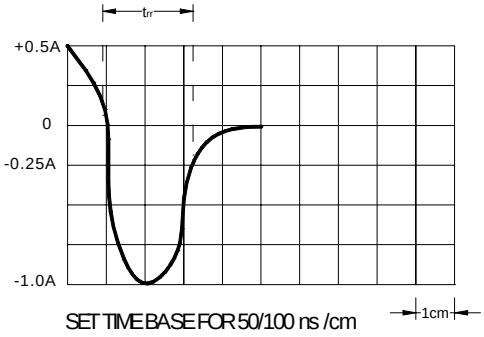
3JH45

Fast Recovery Rectifier

Ratings AND Charactieristic Curves

FIG.1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

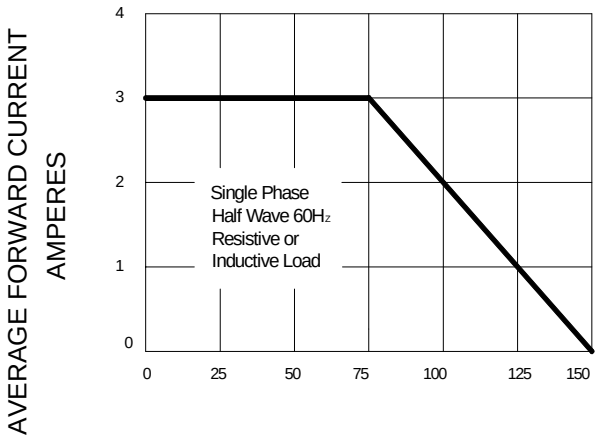




NOTES:1.RISE TIME=7ns MAX. INPUT IMPEDANCE=1MΩ.22pF
2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

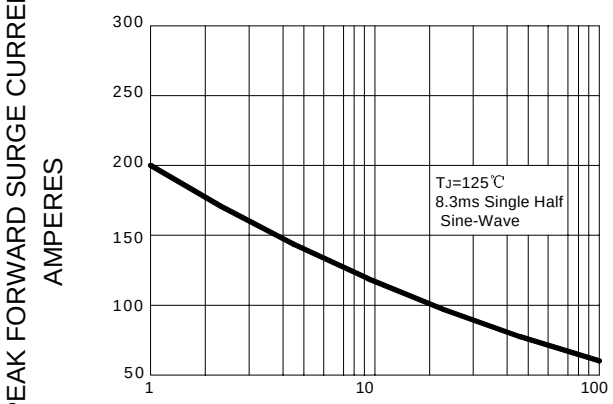
SET TIME BASE FOR 50/100 ns /cm

FIG.2 –FORWARD DERATING CURVE



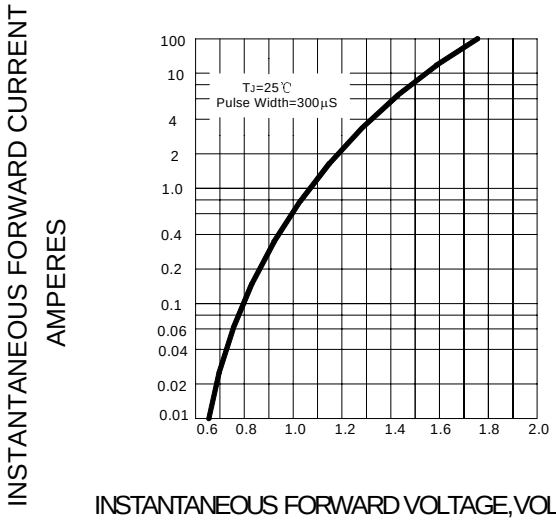
AMBIENT TEMPERATURE,℃

FIG.3 –PEAK FORWARD SURGE CURRENT



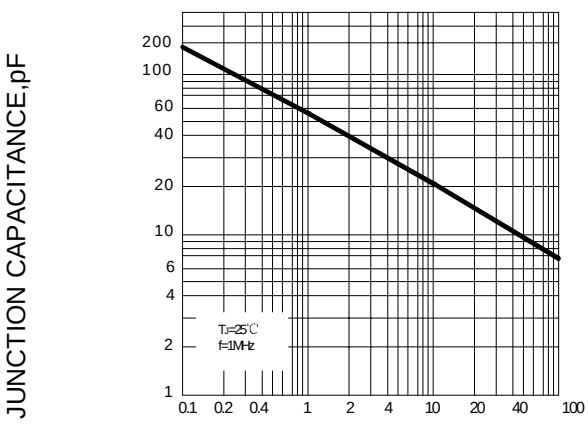
NUMBER OF CYCLES AT 60 Hz

FIG.4–TYPICAL FORWARD CHARACTERISTIC



INSTANTANEOUS FORWARD VOLTAGE,VOLTS

FIG.5– TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE,VOLTS