FAST RECOVERY RECTIFIERS

VOLTAGE RANGE: 100 --- 1000 V
CURRENT: 1.0 A

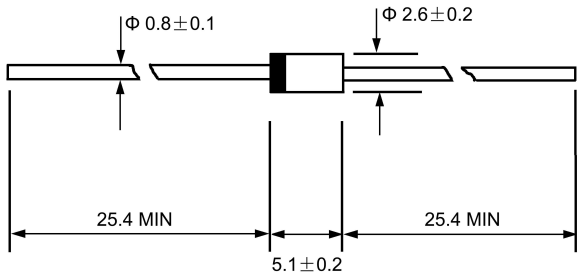
FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Glass passivated junction
- ◇ 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

MECHANICAL DATA

- ◇ Case:JEDEC DO-41,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces,0.34 grams
- ◇ Mounting position: Any

DO - 41



Dimensions in millimeters

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%.

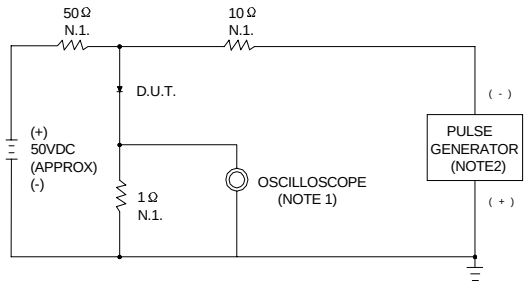
		PG 101	PG 102	PG 103	PG 104	PG 105	PG 106	PG 107	PG 108	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	100	200	300	400	500	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	210	280	350	420	560	700	V
Maximum DC blocking voltage	V_{DC}	100	200	300	400	500	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	30.0								A
Maximum instantaneous forward voltage @ 1.0 A	V_F	1.3								V
Maximum reverse current @T_A=25℃	I_R	5.0								μA
at rated DC blocking voltage @T_A=125℃		100.0								
Maximum reverse recovery time (Note1)	t_{rr}	150					250	500		ns
Typical junction capacitance (Note2)	C_J	12								pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	55								℃/W
Operating junction temperature range	T_J	- 55---- +175								℃
Storage temperature range	T_{STG}	- 55---- + 175								℃

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.

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



NOTES:1.RISE TIME =75ns MAX. INPUT IMPEDANCE=1MΩ.22pF
2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

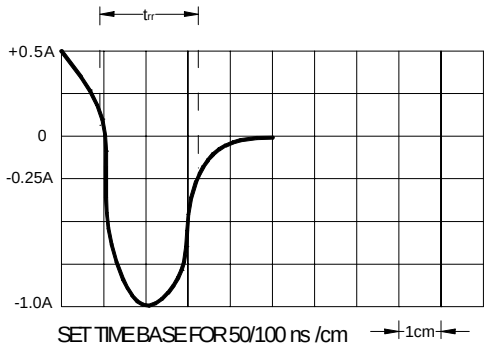


FIG.2 –FORWARD CURRENT DERATING CURVE

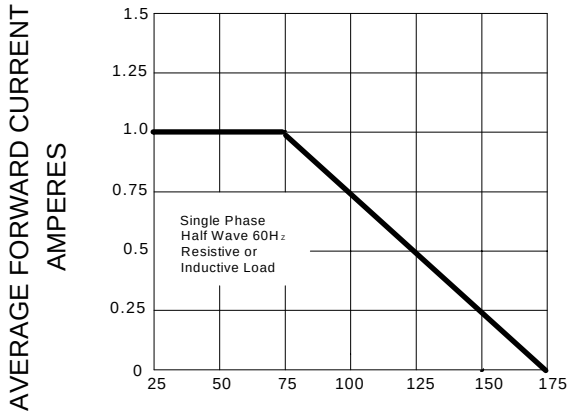


FIG.3 –PEAK FORWARD SURGE CURRENT

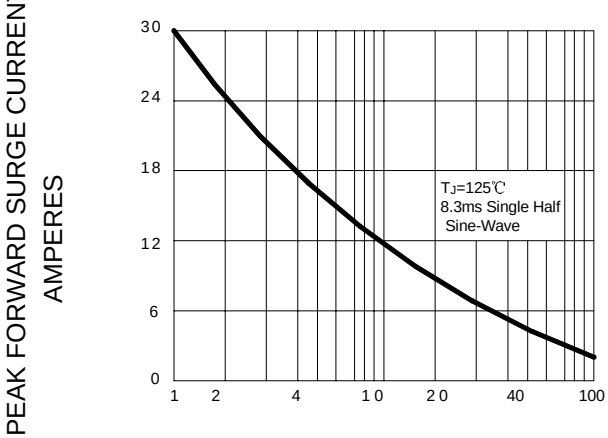


FIG.4– TYPICAL FORWARD CHARACTERISTICS

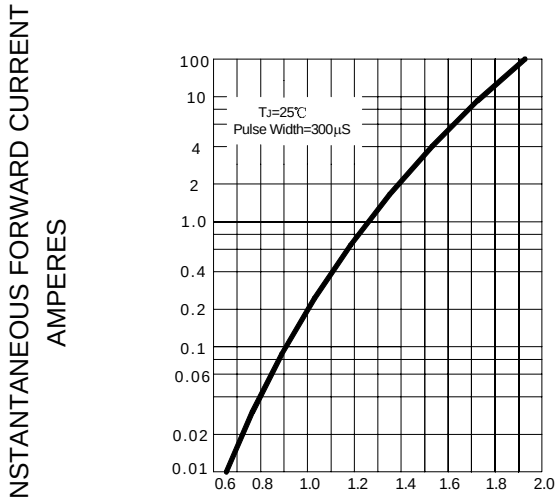


FIG.5– TYPICAL JUNCTION CAPACITANCE

