

FAST RECOVERY RECTIFIER

VOLTAGE RANGE: 100 --- 1000 V

CURRENT: 2.0 A

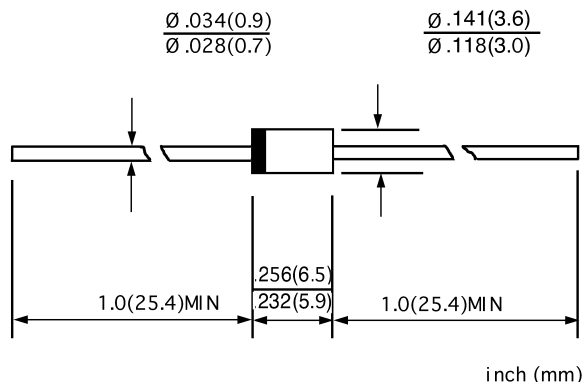
FEATURES

- ◇ 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-15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting position: Any

DO - 15



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		PG 201	PG 202	PG 203	PG 204	PG 205	PG 206	PG 207	PG 208	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°C	I _{F(AV)}	2.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	70.0								A
Maximum instantaneous forward voltage @ 2.0 A	V _F	1.3								V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C	I _R	5.0 100.0								μ A
Maximum reverse recovery time (Note1)	t _{rr}	150					250	500		ns
Typical junction capacitance (Note2)	C _J	18								pF
Typical thermal resistance (Note3)	R _{θJA}	45								°C/W
Operating junction temperature range	T _J	- 55---- +175								°C
Storage temperature range	T _{STG}	- 55---- + 175								°C

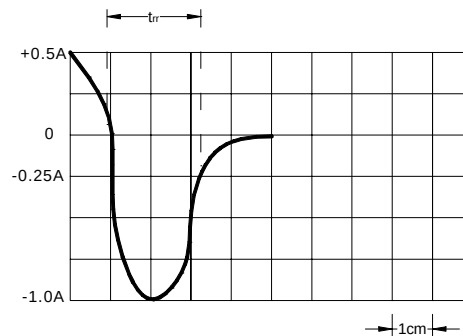
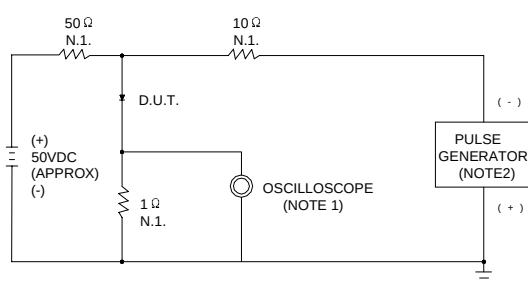
NOTE:1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.

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

3. Thermal resistance from junction to ambient.

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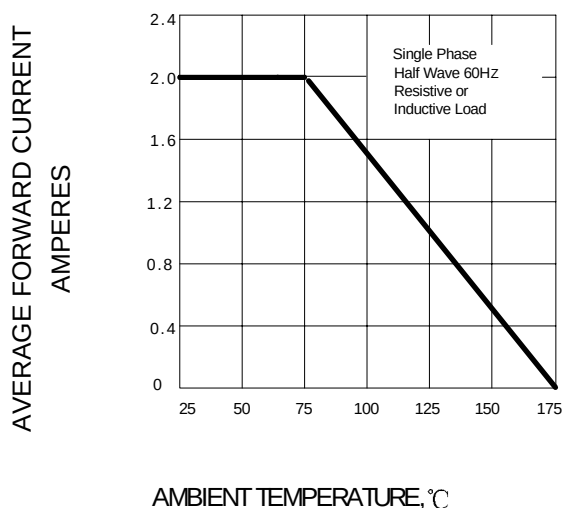
FIG.1 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



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

SET TIME BASE FOR 50/100 ns /cm

FIG.2 – FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT
AMPERES

FIG.3 – PEAK FORWARD SURGE CURRENT

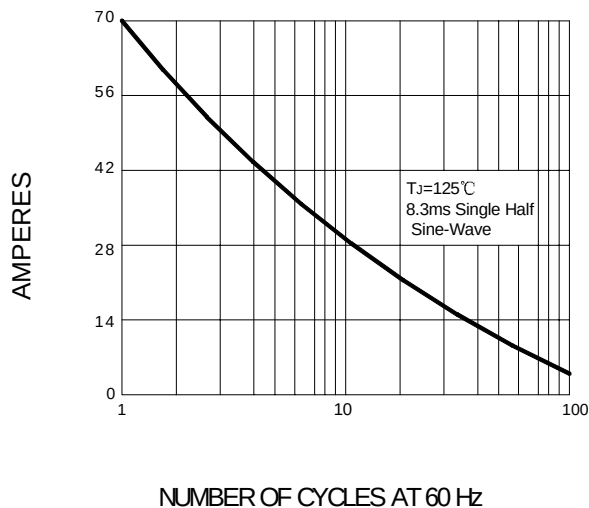


FIG.4 – FORWARD CHARACTERISTICS

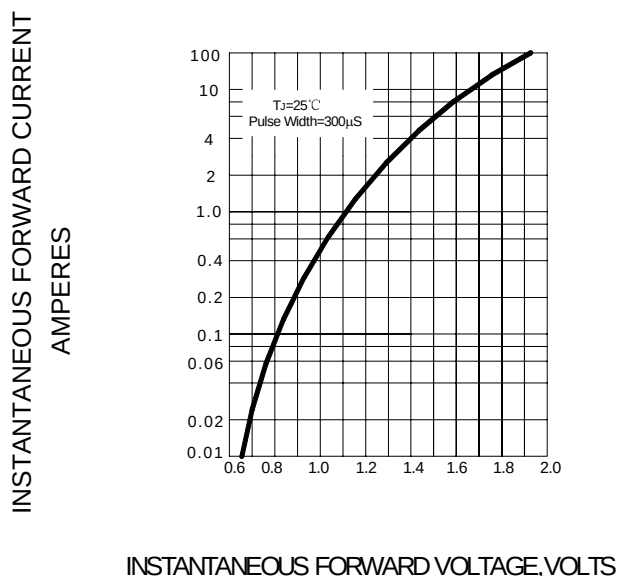


FIG.5 – TYPICAL JUNCTION CAPACITANCE

