

GLASS PASSIVATED RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V

CURRENT: 2.0 A

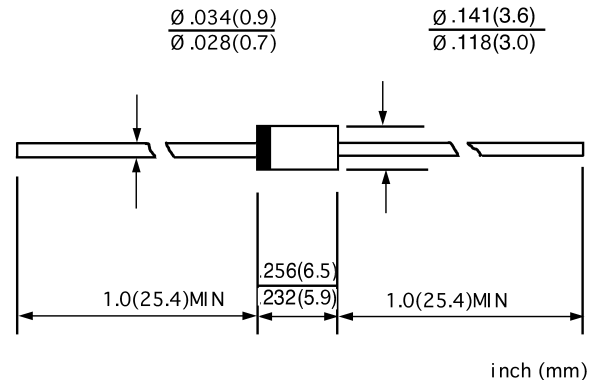
FEATURES

- ◇ Low cost
- ◇ Glass passivated junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with 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%.

		FR201G	FR202G	FR203G	FR204G	FR205G	FR206G	FR207G	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	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	I _{FSM}	70.0							A
Maximum instantaneous forward voltage at 2.0A	V _F	1.3							V
Maximum reverse current @T _J =25°C at rated DC blocking voltage @T _J =125°C	I _R	5.0 100.0							μA
Maximum reverse recovery time (Note1)	t _{rr}	150				250	500		ns
Typical junction capacitance (Note2)	C _J	18.0							pF
Typical thermal resistance (Note3)	R _{θJA}	45.0							°C/W
Operating junction temperature range	T _J	- 55 ---- + 175							°C
Storage temperature range	T _{STG}	- 55 ---- + 175							°C

NOTE: 1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $t_r = 0.25\text{A}$.

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

3. Thermal resistance junction to ambient

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FIG.1 -FORWARD DERATING CURVE

AVERAGE FORWARD RECTIFIED CURRENT
AMPERES

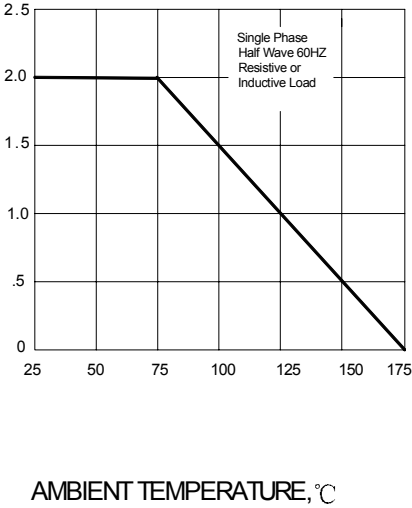
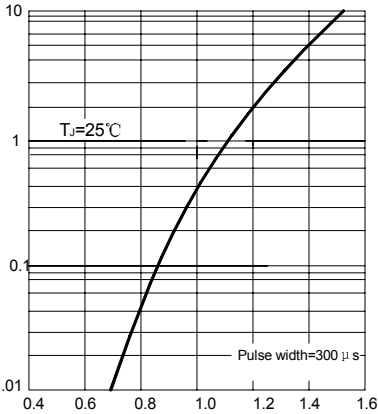


FIG.2 - TYPICAL FORWARD CHARACTERISTICS

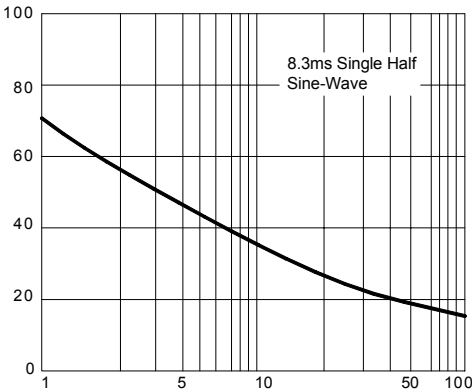
INSTANTANEOUS FORWARD CURRENT
AMPERES



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 -PEAK FORWARD SURGE CURRENT

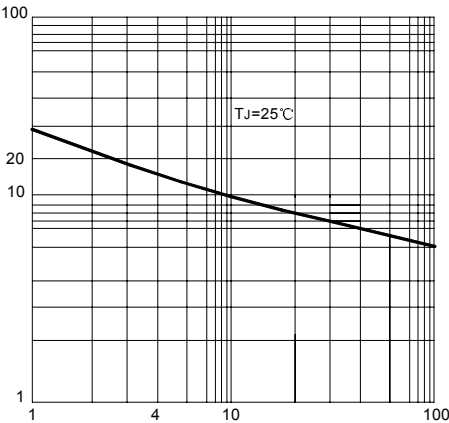
PEAK FORWARD SURGE CURRENT
AMPERES



NUMBER OF CYCLES AT 60Hz

FIG.4 - TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE,pf



REVERSE VOLTAGE, VOLTS