



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

BA157G
THRU
BA159G

TECHNICAL SPECIFICATIONS OF FAST RECOVERY RECTIFIER

VOLTAGE RANGE - 400 to 1000 Volts CURRENT - 1.0 Ampere

FEATURES

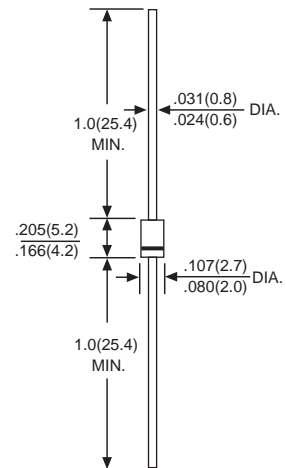
- * Fast switching
- * Low Iwakage
- * Low forward voltage drop
- * High current capability
- * High current surge
- * High reliability
- * Glass passivated junction

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.33 gram approx.



DO-41



Dimensions in inches and (millimeters)

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 current by 20%.

| | SYMBOL | BA157G | BA158G | BA159G | UNITS |
|---|----------|-------------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 400 | 600 | 1000 | Volts |
| Maximum RMS Voltage | VRMS | 280 | 420 | 700 | Volts |
| Maximum DC Blocking Voltage | Vdc | 400 | 600 | 1000 | Volts |
| Maximum Average Forward Rectified Current at TA = 55°C | Io | 1.0 | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 30 | | | Amps |
| Maximum Instantaneous Forward Voltage at 1.0A DC | VF | 1.3 | | | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage TA=25°C | IR | 5.0 | | | µAmps |
| Maximum Full Load Reverse Current Average, Full Cycle .375"(9.5mm) lead length at T L = 55°C | | 100 | | | |
| Maximum Reverse Recovery Time (Note 1) | trr | 150 | 250 | 500 | nSec |
| Typical Junction Capacitance (Note 2) | CJ | 15 | | | pF |
| Operating and Storage Temperature Range | TJ, TSTG | -55 to +150 | | | °C |

NOTES : 1.Test Conditions: IF = 0.5A, IR = 1.0A, IRR = 0.25A
2.Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (BA157G THRU BA159G)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

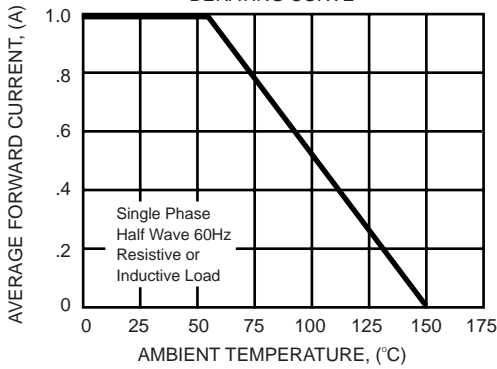


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

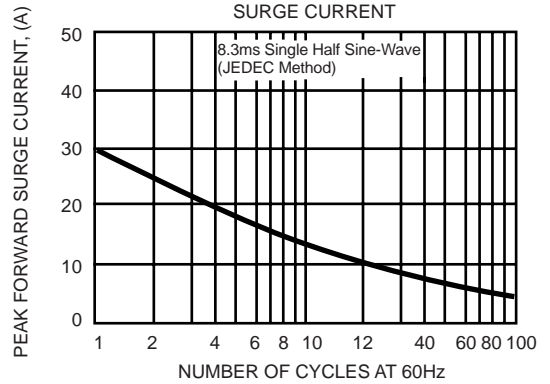


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

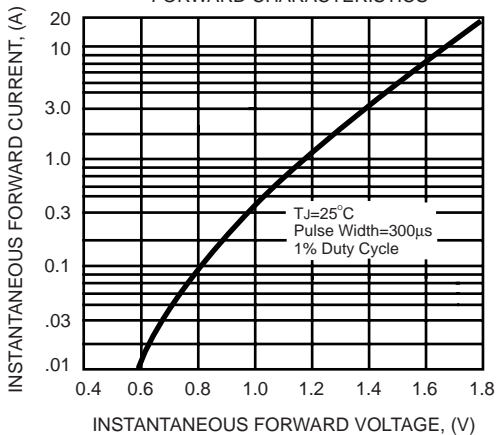


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

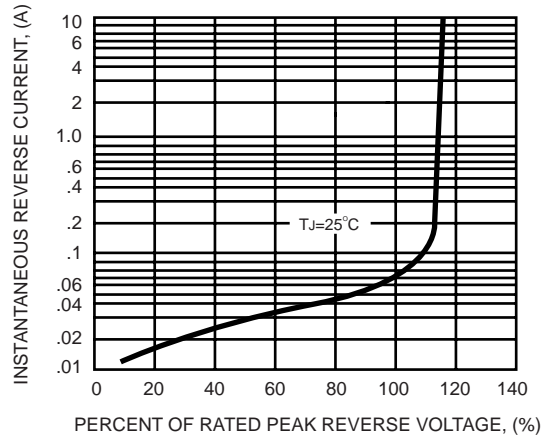


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

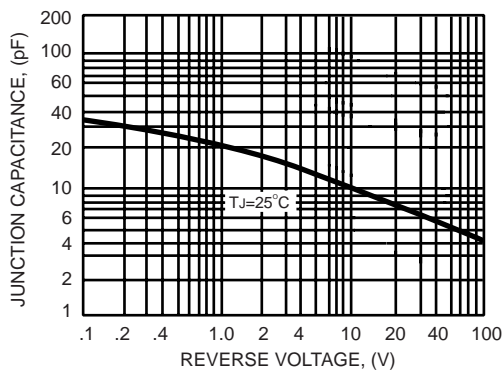
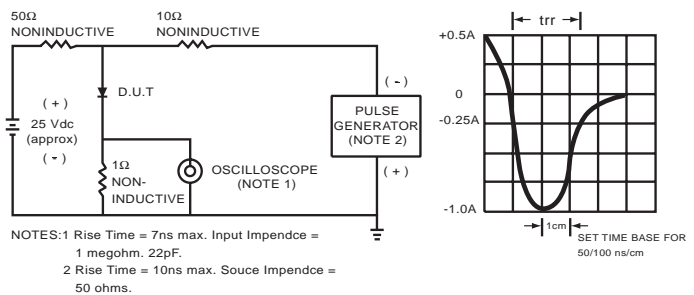


FIG. 6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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