

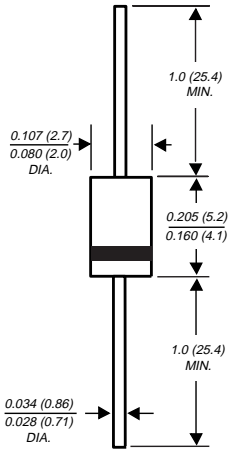
BA157 THRU BA159D

FAST SWITCHING PLASTIC RECTIFIER

Reverse Voltage - 400 to 800 Volts

Forward Current - 1.0 Ampere

DO-204AL



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High surge current capability
- ◆ Void-free plastic package
- ◆ Fast switching for high efficiency
- ◆ High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: JEDEC DO-204AL molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | BA157 | BA158 | BA159D | UNITS |
|--|-------------------|-------------|-------|--------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 400 | 600 | 800 | Volts |
| Maximum RMS voltage | V _{RMS} | 280 | 420 | 560 | Volts |
| Maximum DC blocking voltage | V _{DC} | 400 | 600 | 800 | Volts |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =55°C | I _(AV) | 1.0 | | | Amp |
| Peak forward surge current 10ms single half sine-wave superimposed on rated load at T _A =25°C | I _{FSM} | 20.0 | | | Amps |
| Maximum instantaneous forward voltage at 1.0A | V _F | 1.3 | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage T _A =25°C | I _R | 5.0 | | | μA |
| Maximum reverse recovery time (NOTES 1) | t _{rr} | 300 | | | ns |
| Typical junction capacitance (NOTE 2) | C _J | 12.0 | | | pF |
| Maximum operation junction temperature | T _J | -65 to +125 | | | °C |
| Maximum storage temperature | T _{STG} | -65 to +150 | | | °C |

NOTES:

(1) Reverse recovery test conditions: I_F=10mA, I_R=10mA, I_{rr}=1mA for 400 to 800 Volt devices

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES BA157 THRU BA159D

FIG. 1 - FORWARD CURRENT DERATING CURVE

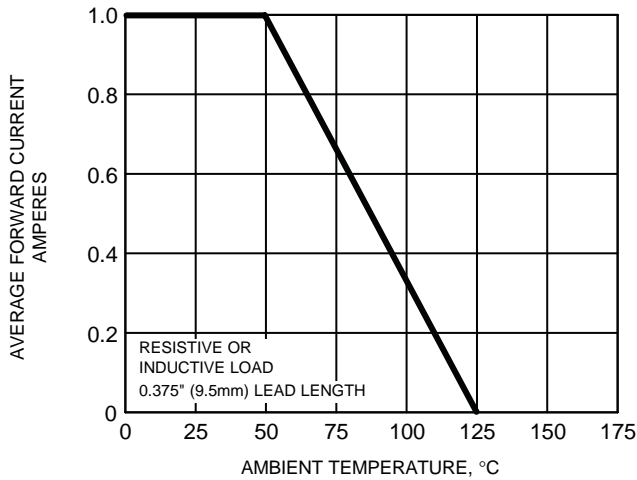


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

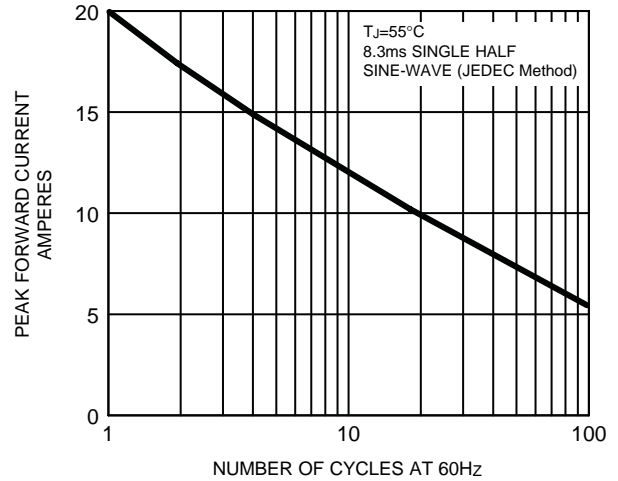


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

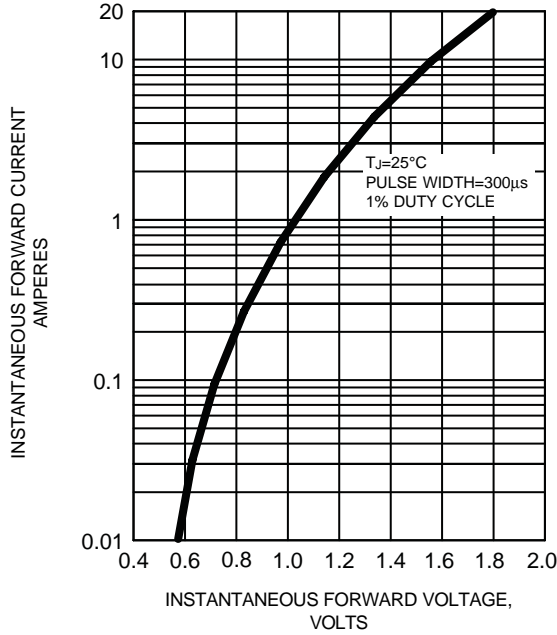


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

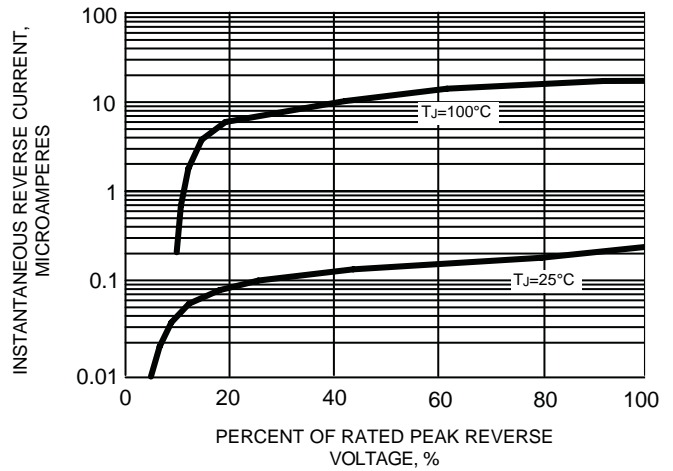


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

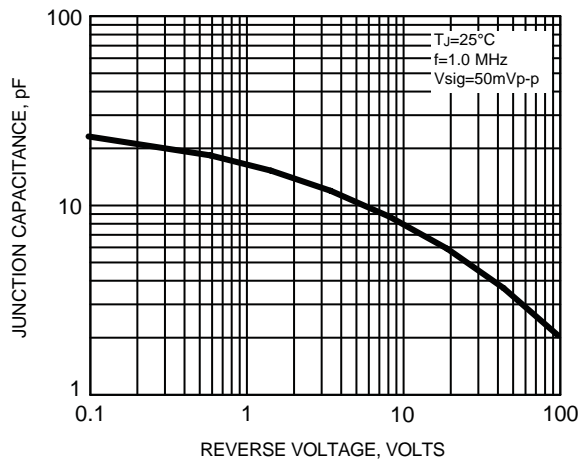


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

