

Silicon Diode

BA157

400V / 1A

DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

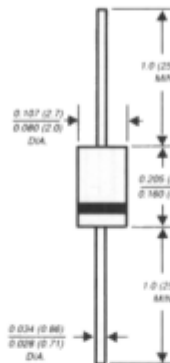
BA157 THRU BA159D

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_R=10mA, I_F=10mA, I_R=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

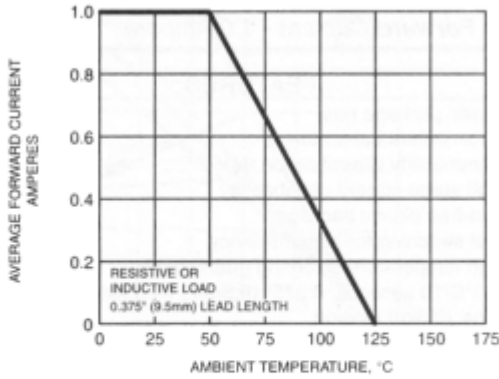


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

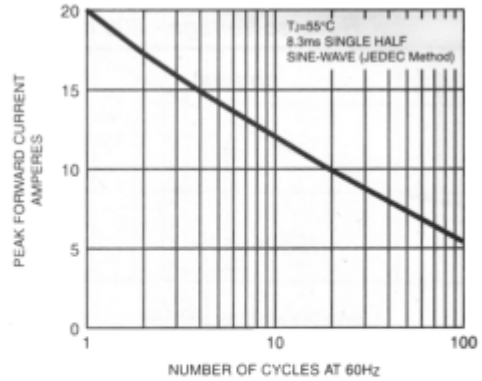


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

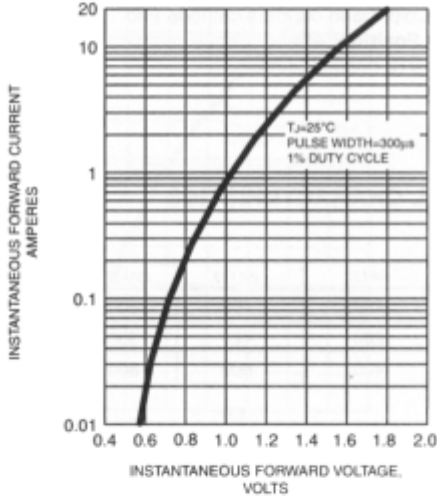


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

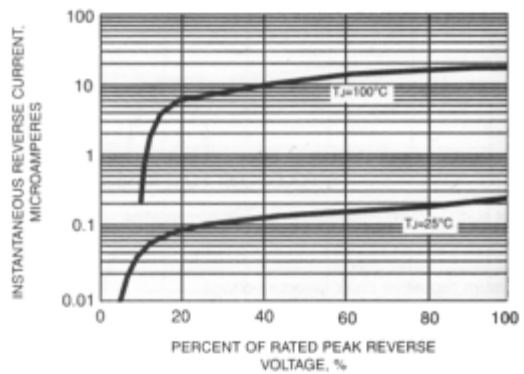


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

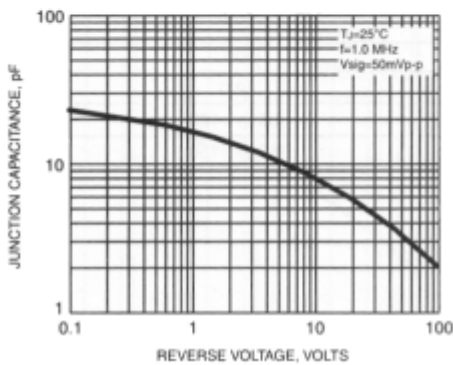


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

