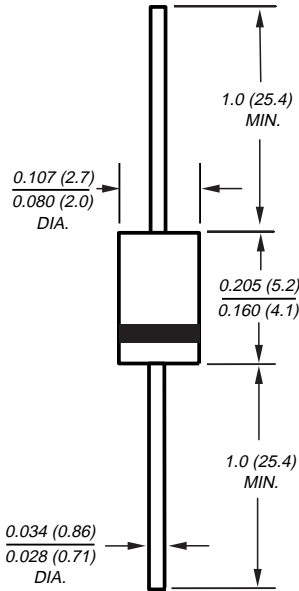


Fast Switching Plastic Rectifier

Reverse Voltage 400 to 1000V
Forward Current 1.0A

DO-204AL (DO-41)



Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratories 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 oz., 0.3 g

Packaging codes/options:

1/5K per bulk box

23/3K per Ammo mag. (52mm tape),

4/5.5K per 13" reel (52mm tape),

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	BA157	BA158	BA159D	BA159	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =55°C	I _{F(AV)}	1.0				A
Peak forward surge current 10ms single half sine-wave superimposed on rated load at T _A =25°C	I _{FSM}	20				A
Maximum operation junction temperature	T _J	-65 to +125				°C
Maximum storage temperature	T _{STG}	-65 to +150				°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	BA157	BA158	BA159D	BA159	Unit
Maximum instantaneous forward voltage at 1.0A	V _F	1.3				V
Maximum DC reverse current at rated DC blocking voltage T _A =25°C	I _R	5.0				μA
Maximum reverse recovery time at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	150	250	500		ns
Typical junction capacitance at 4.0V, 1MHz	C _J	12				pF

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

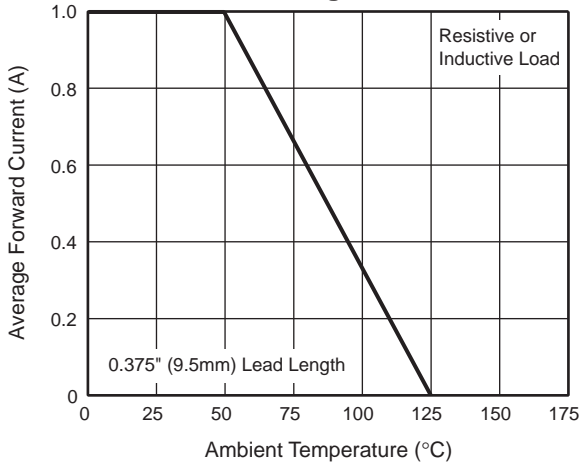


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

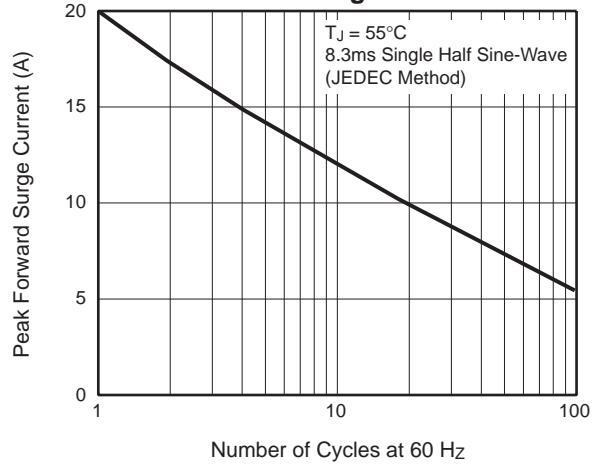


Fig. 3 – Typical Instantaneous Forward Characteristics

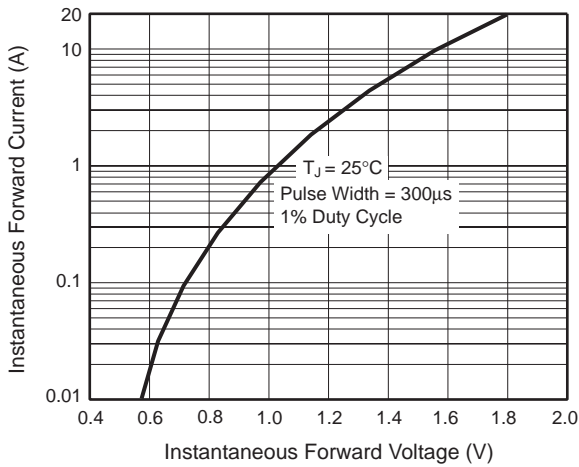


Fig. 4 – Typical Reverse Characteristics

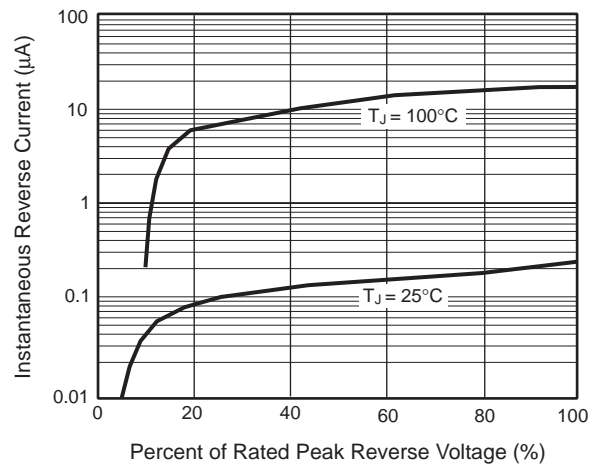


Fig. 5 – Typical Junction Capacitance

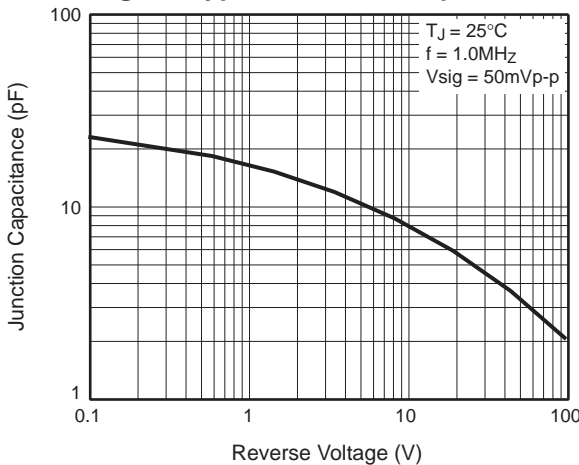


Fig. 6 – Typical Transient Thermal Impedance

