



FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection

Mechanical Data

Case: JEDEC DO-204AC molded plastic over a passivated junction

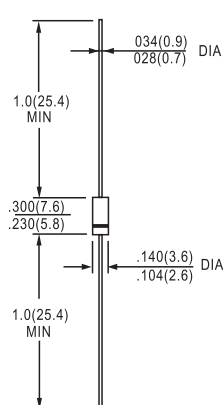
Terminals: Solder Plated axial leads, solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed:
250°C/10 seconds 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.015 oz., 0.4 g



DO-15

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	SB2H90	SB2H100	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	90	100	V
Working Peak Reverse Voltage	V _{RWM}	90	100	V
Maximum DC blocking voltage	V _{DC}	90	100	V
Maximum average forward rectified current at T _A = 25°C	I _{F(AV)}	2.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	75		A
Peak repetitive reverse surge current at t _p = 2.0μs, 1KHz	I _{RRM}	1.0		A
Critical rate of rise of reverse voltage	dv/dt	10,000		V/μs
Typical thermal resistance ⁽²⁾	R _{θJA}	45		°C/W
	R _{θJL}	14		
Storage temperature range	T _{STG}	−55 to +175		°C
Maximum operating junction temperature	T _J	+175		°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Max. instantaneous forward voltage ⁽¹⁾	I _F = 2A, T _J = 25°C I _F = 2A, T _J = 125°C	V _F	0.79 0.65	V
Maximum DC reverse current at rated DC blocking voltage	T _J = 25°C T _J = 125°C	I _R	10 4	μA mA

Notes: (1) Pulse test: 300μs pulse width, 1% duty cycle

(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas



Fig. 1 – Forward Current Derating Curve

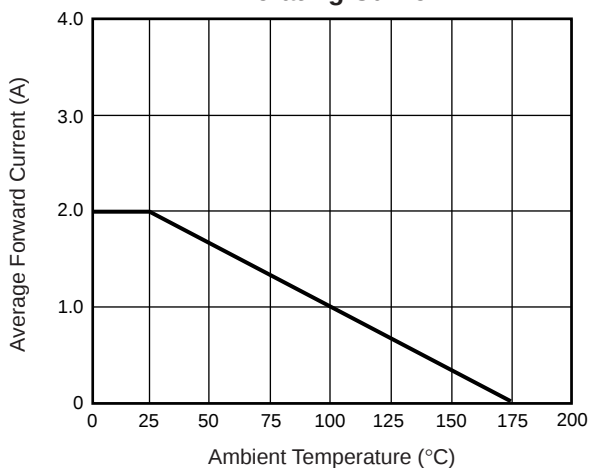


Fig. 2 – Typical Instantaneous Forward Characteristics

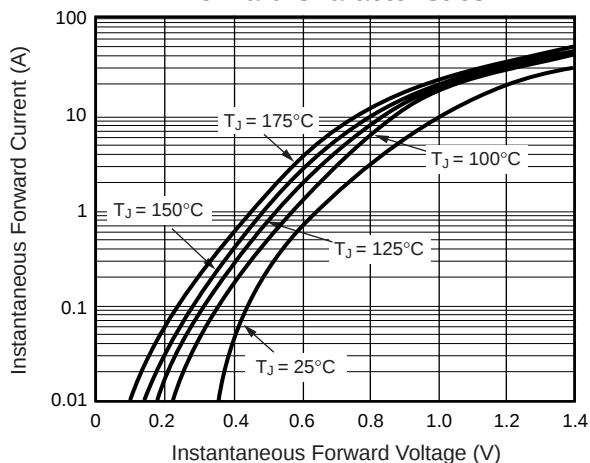


Fig. 3 – Typical Reverse Characteristics

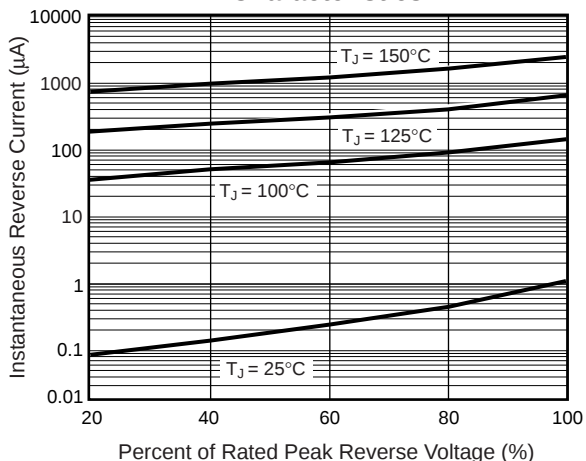


Fig. 4 – Typical Junction Capacitance

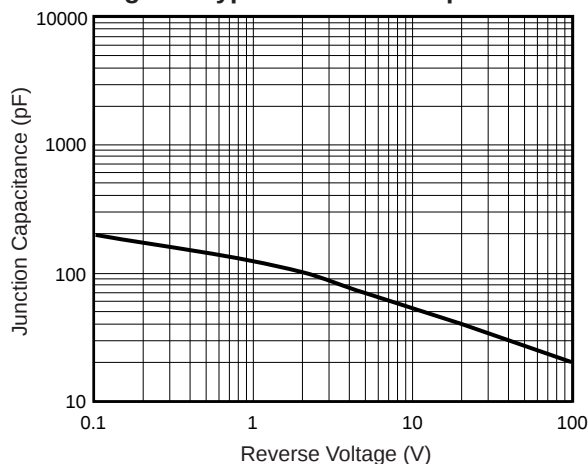


Fig. 5 - Typical Transient Thermal Impedance

