

# Switching diode

## BAV70 / BAW56 / BAV99

\*This product is available only outside of Japan.

●Application

Ultra high speed switching

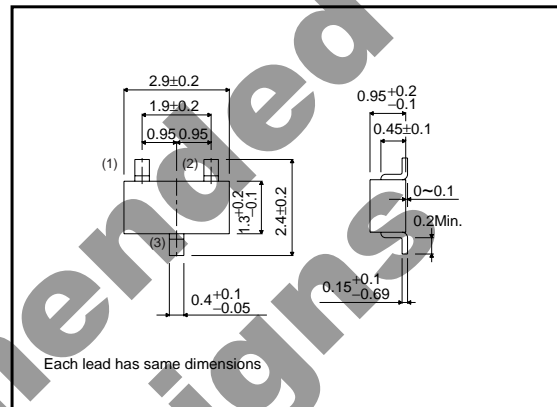
●Features

- 1) Small surface mounting type. (SSD3)
- 2) High speed. ( $t_{rr}$ =1.5ns Typ.)
- 3) Four types of circuit configurations are available.

●Construction

Silicon epitaxial planar

●External dimensions (Unit : mm)



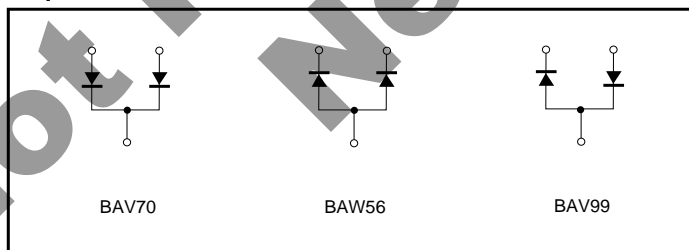
●Marking (Type No.)

Product name	Type No.
BAV70	RA4
BAW56	RA1
BAV99	RA7

(Ex.) BAV70



●Equivalent circuits



Diodes

●Absolute maximum ratings (Ta=25°C)

Type	Peak reverse voltage V <sub>RM</sub> (V)	DC reverse voltage V <sub>R</sub> (V)	Peak forward current I <sub>FM</sub> (mA)	Mean rectifying current I <sub>F</sub> (mA)	Surge current (1μs) I <sub>surge</sub> (A)	Power dissipation (TOTAL) Pd (mW)	Junction temperature T <sub>J</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)	P / N Type
BAV70	75	70	450	215	4	300	150	-55 to +150	N
BAW56	85	70	450	215	4	225	150	-55 to +150	P
BAV99	85	75	450	215	4	300	150	-55 to +150	N

●Electrical characteristics (Ta=25°C)

Type	Forward voltage		Reverse current		Capacitance between terminals			Reverse recovery time		
	V <sub>F</sub> (V) Max.	Cond.	I <sub>R</sub> (μA) Max.	Cond.	C <sub>T</sub> (pF) Max.	Cond.		t <sub>rr</sub> (ns) Max.	Cond.	
		I <sub>F</sub> (mA)		V <sub>R</sub> (V)		V <sub>R</sub> (V)	f (MHz)		V <sub>R</sub> (V)	I <sub>F</sub> (mA)
BAV70	1.25	150	2.5	70	1.5	0	1	4	10	10
BAW56	1.25	150	1.0	75	2.0	0	1	4	10	10
BAV99	1.25	150	1.0	75	1.5	0	1	4	10	10

●Electrical characteristic curves (Ta=25°C)

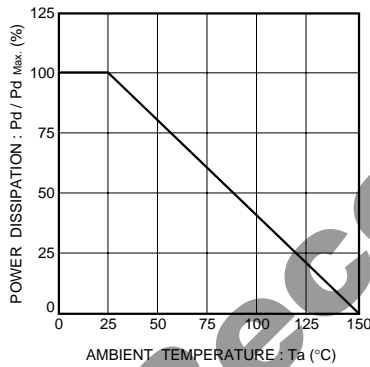


Fig.1 Power attenuation curve

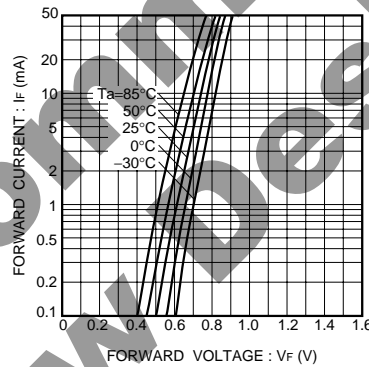


Fig.2 Forward characteristics (P Type)

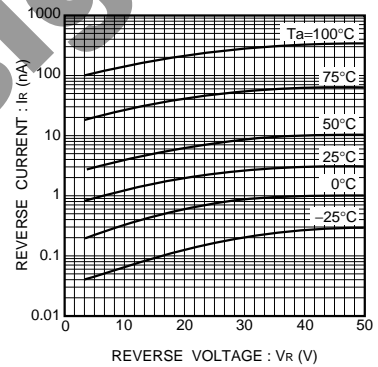


Fig.3 Reverse characteristics (P Type)

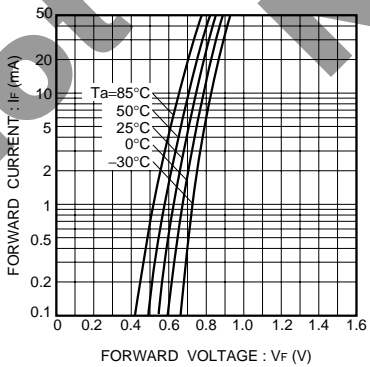


Fig.4 Forward characteristics (N Type)

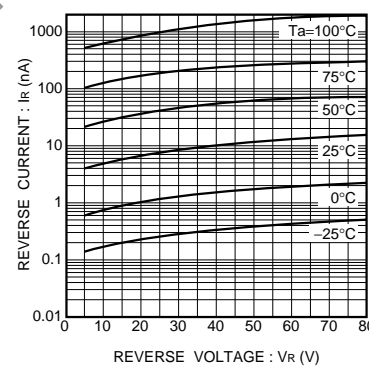


Fig.5 Reverse characteristics (N Type)

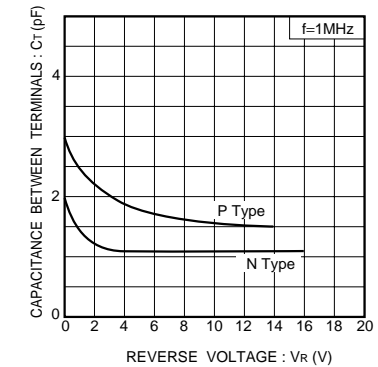


Fig.6 Capacitance between terminals characteristics

Diodes

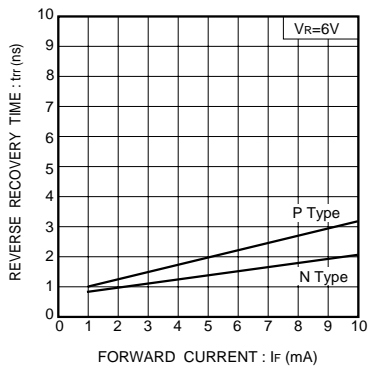


Fig.7 Reverse recovery time

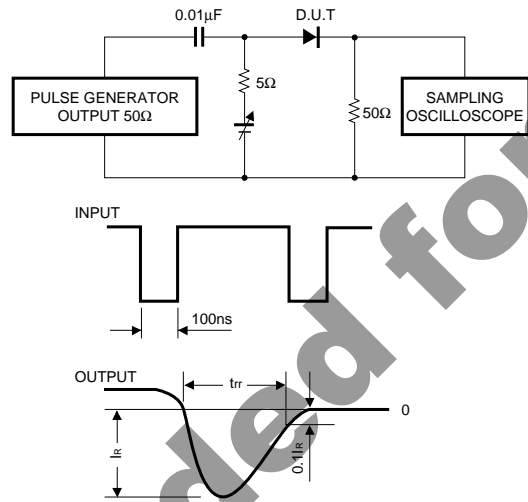


Fig.8 Reverse recovery time ( $t_{rr}$ ) measurement circuit

Not Recommended for New Designs

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