

# Switching diode

## BAV70 / BAW56 / BAV99

\*This product is available only outside of Japan.

**●Application**

Ultra high speed switching

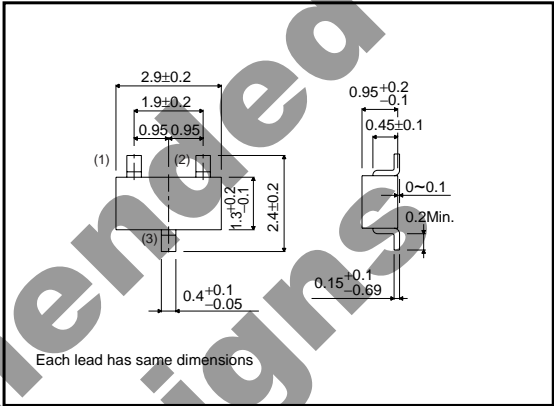
**●Features**

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

**●Construction**

Silicon epitaxial planar

**●External dimensions (Unit : mm)**



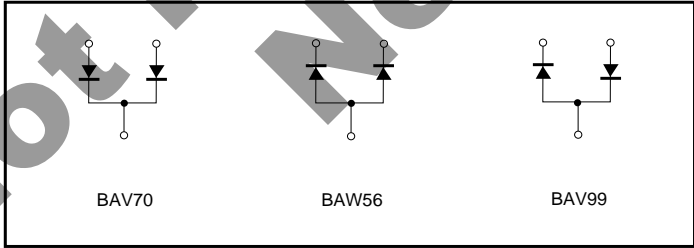
**●Marking (Type No.)**

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)

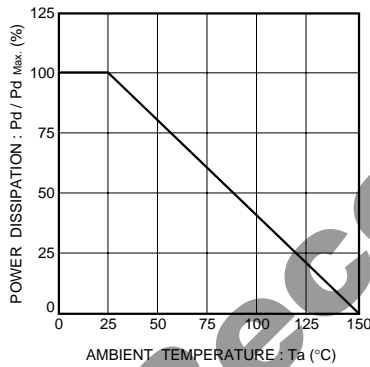


Fig.1 Power attenuation curve

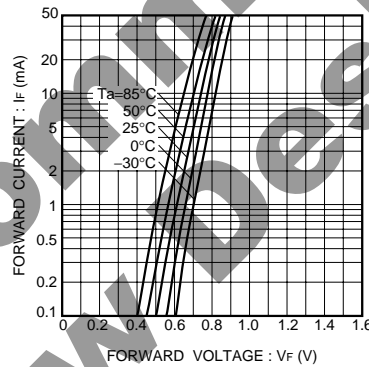


Fig.2 Forward characteristics (P Type)

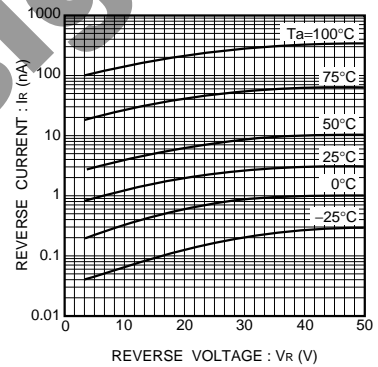


Fig.3 Reverse characteristics (P Type)

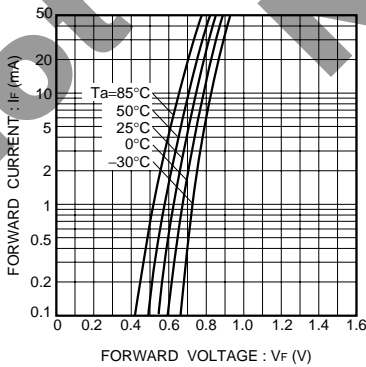


Fig.4 Forward characteristics (N Type)

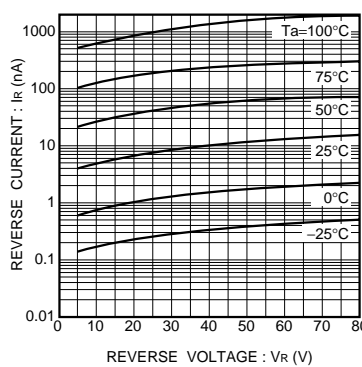


Fig.5 Reverse characteristics (N Type)

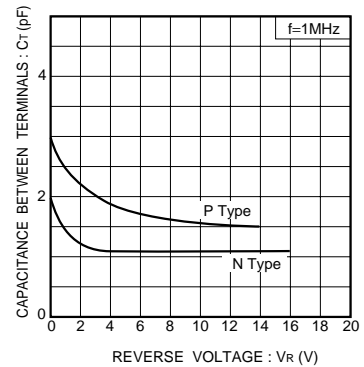


Fig.6 Capacitance between terminals characteristics

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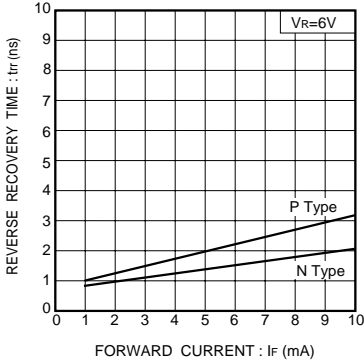


Fig.7 Reverse recovery time

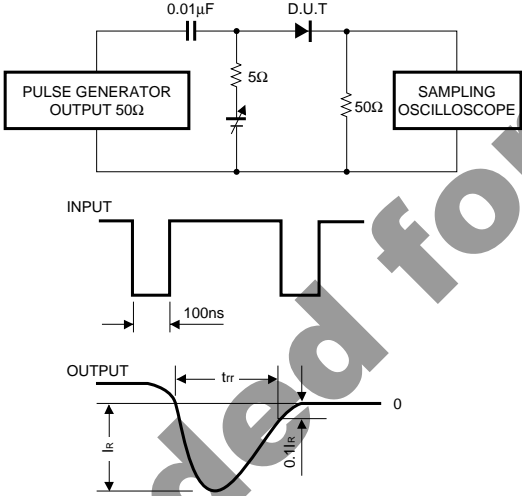


Fig.8 Reverse recovery time ( $t_{rr}$ ) measurement circuit

Not Recommended for New Designs

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