

# Switching diode

## BAV70 / BAW56 / BAV99

\*This product is available only outside of Japan.

### ●Application

Ultra high speed switching

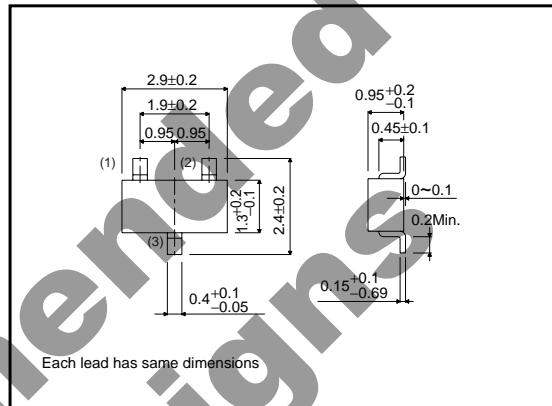
### ●Features

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

### ●Construction

Silicon epitaxial planar

### ●External dimensions (Unit : mm)



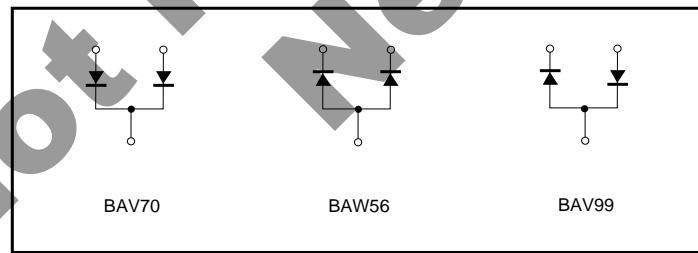
### ●Marking (Type No.)

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) P <sub>d</sub> (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 V <sub>F</sub> (V)	Reverse current		Capacitance between terminals		tr (ns) Max.	Reverse recovery time	
		Cond.	I <sub>R</sub> (μA) Max.	Cond.	C <sub>T</sub> (pF) Max.		Cond.	Cond.
		Max.	I <sub>F</sub> (mA)	V <sub>R</sub> (V)	V <sub>R</sub> (V)		V <sub>R</sub> (V)	I <sub>F</sub> (mA)
BAV70	1.25	150	2.5	70	1.5	0	1	4
BAW56	1.25	150	1.0	75	2.0	0	1	4
BAV99	1.25	150	1.0	75	1.5	0	1	4

## ●Electrical characteristic curves (Ta=25°C)

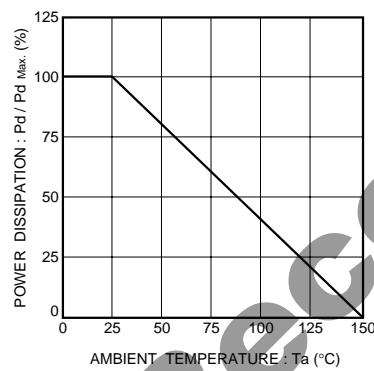


Fig.1 Power attenuation curve

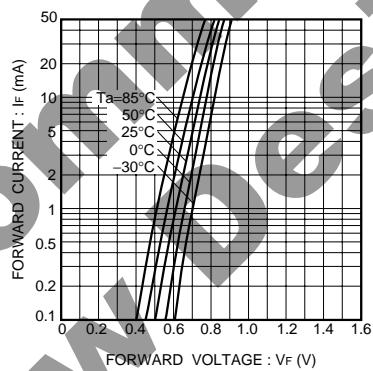


Fig.2 Forward characteristics (P Type)

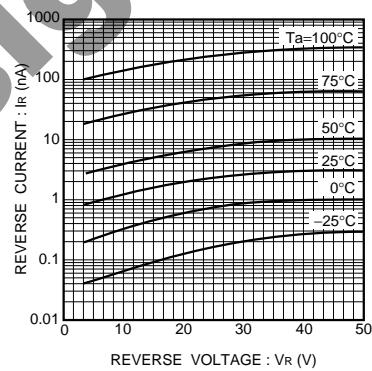


Fig.3 Reverse characteristics (P Type)

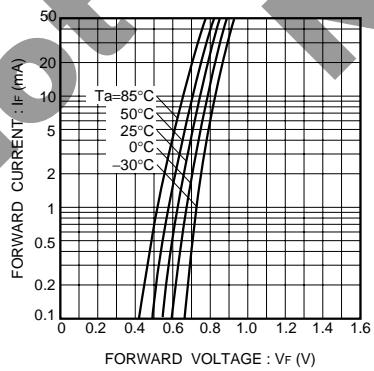


Fig.4 Forward characteristics (N Type)

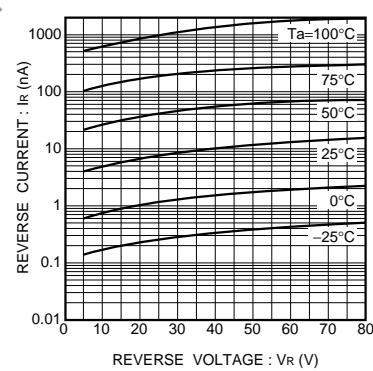


Fig.5 Reverse characteristics (N Type)

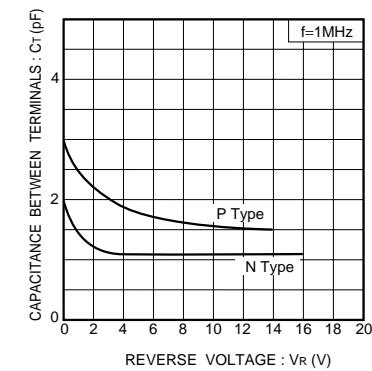


Fig.6 Capacitance between terminals characteristics

## Diodes

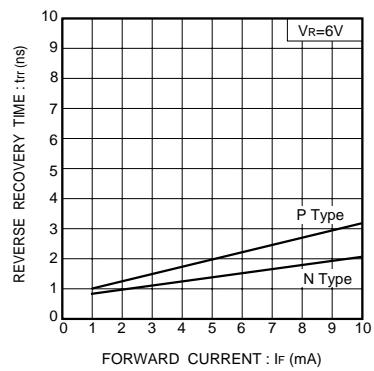
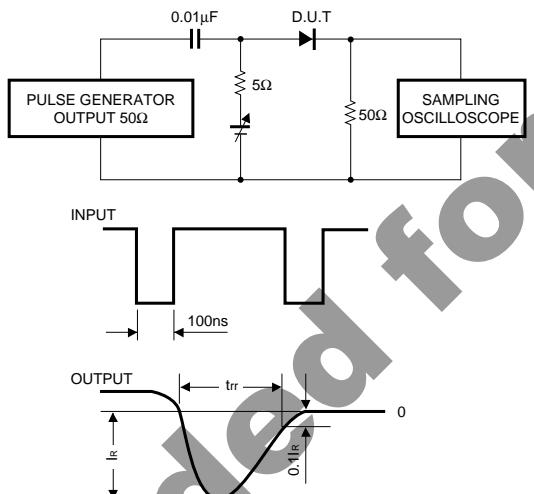


Fig.7 Reverse recovery time

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

## Appendix

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