

Switching diode

BAV70 / BAW56 / BAV99

*This product is available only outside of Japan.

●Application

Ultra high speed switching

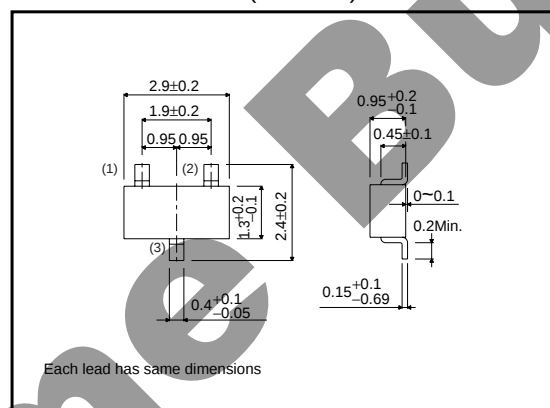
●Features

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

●Construction

Silicon epitaxial planar

●External dimensions (Unit : mm)



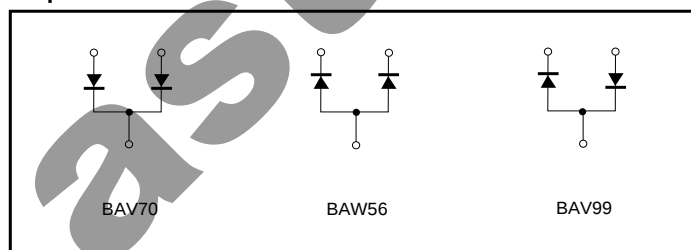
●Marking (Type No.)

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_{RM} (V)	DC reverse voltage V_R (V)	Peak forward current I_{FM} (mA)	Mean rectifying current I_F (mA)	Surge current (1 μ s) I_{surge} (A)	Power dissipation (TOTAL) P_d (mW)	Junction temperature T_J (°C)	Storage temperature T_{stg} (°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_F (V) Max.	Cond. I_F (mA)	I_R (μ A) Max.	Cond. V_R (V)	C_T (pF) Max.	Cond.		t_{rr} (ns) Max.	Cond. V_R (V)	I_F (mA)
BAV70	1.25	150	2.5	70	1.5	V_R (V)	f (MHz)	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)

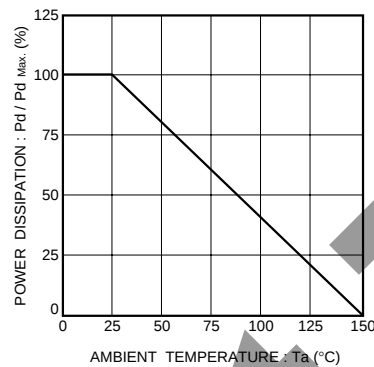


Fig.1 Power attenuation curve

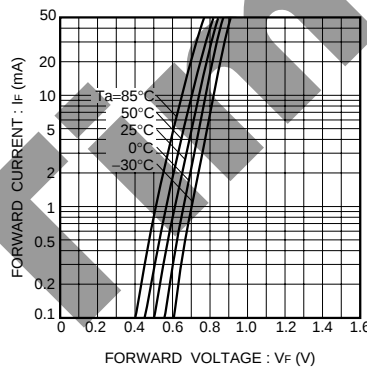


Fig.2 Forward characteristics (P Type)

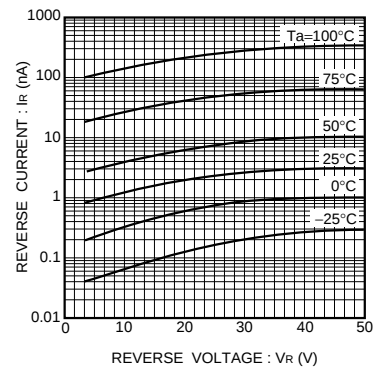


Fig.3 Reverse characteristics (P Type)

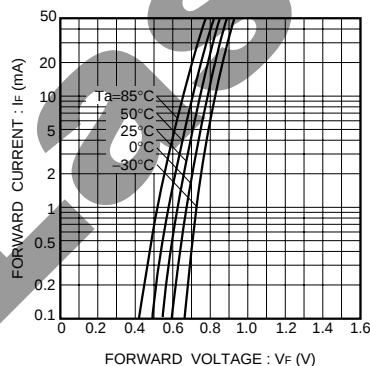


Fig.4 Forward characteristics (N Type)

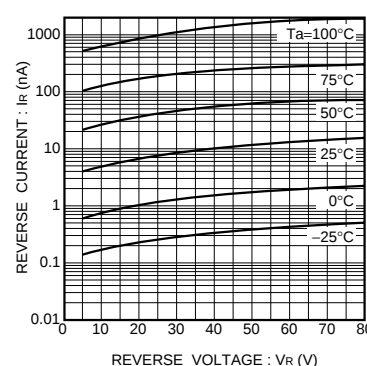


Fig.5 Reverse characteristics (N Type)

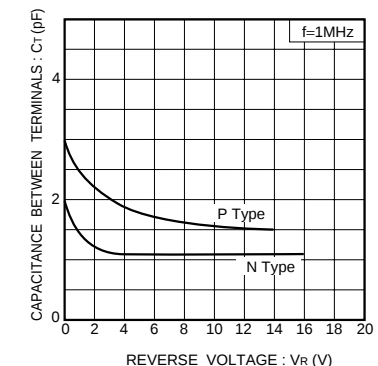


Fig.6 Capacitance between terminals characteristics

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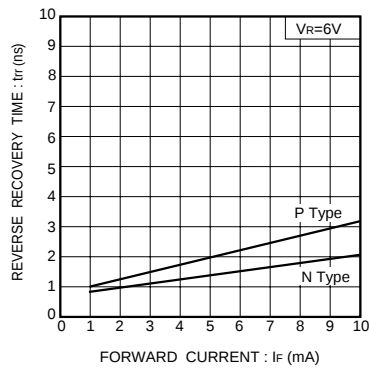
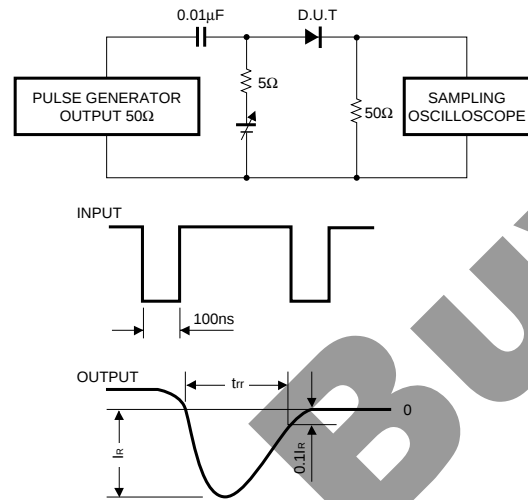


Fig.7 Reverse recovery time

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

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