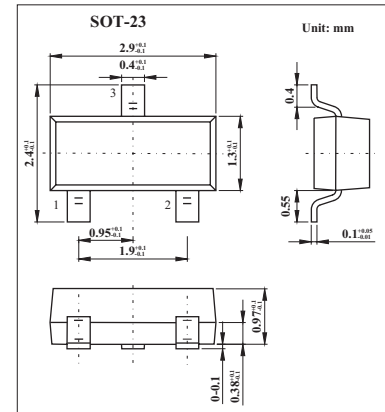
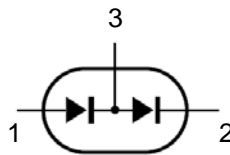


General Purpose Double Diode BAV23S

■ Features

- Small plastic SMD package
- Switching speed: max. 50 ns
- General application
- Continuous reverse voltage: max. 200 V
- Repetitive peak reverse voltage: max. 250 V
- Repetitive peak forward current: max. 625 mA.



Absolute Maximum Ratings $T_a = 25$

Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}	250	V
Continuous reverse voltage	V_R	200	V
Continuous forward current (single diode loaded *)	I_F	225	mA
(double diode loaded *)		125	
Repetitive peak forward current	I_{FRM}	625	mA
Non-repetitive peak forward current ($T_j = 25$)	I_{FSM}	9	A
$t = 100\mu s$		3	
$t = 10ms$		1.7	
power dissipation ($T_{amb} = 25$) *	P_D	250	mW
thermal resistance from junction to tie-point	$R_{th\ j-tp}$	360	K/W
thermal resistance from junction to ambient *	$R_{th\ j-a}$	500	K/W
Storage temperature	$T_{st\ g}$	-65 to +150	
Junction temperature	T_j	150	

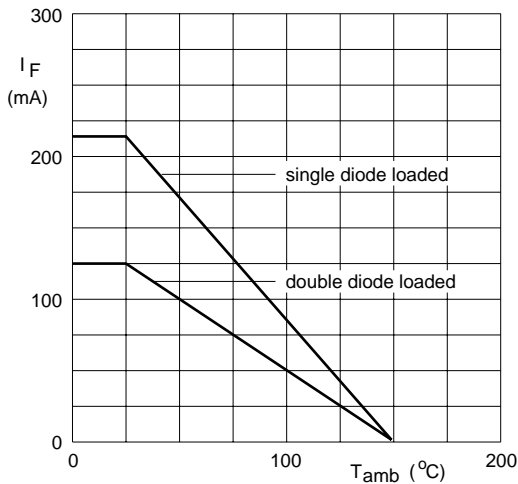
* Device mounted on an FR4 printed-circuit board.

Electrical Characteristics $T_a = 25$

Parameter	Symbol	Conditions	Max	Unit
Forward voltage	V_F	$I_F = 100\text{ mA}$	1.0	V
		$I_F = 200\text{ mA}$	1.25	V
Reverse current	I_R	$V_R = 200\text{ V}$	100	nA
		$V_R = 200\text{ V}; T_j = 150$	100	mA
Diode capacitance	C_d	$f = 1\text{ MHz}; V_R = 0\text{ V};$	5	pF
Reverse recovery time	t_{rr}	when switched from $I_F = 30\text{ mA}$ to $I_R = 30\text{ mA};$ $R_L = 100$; measured at $I_R = 3\text{ mA};$	50	ns

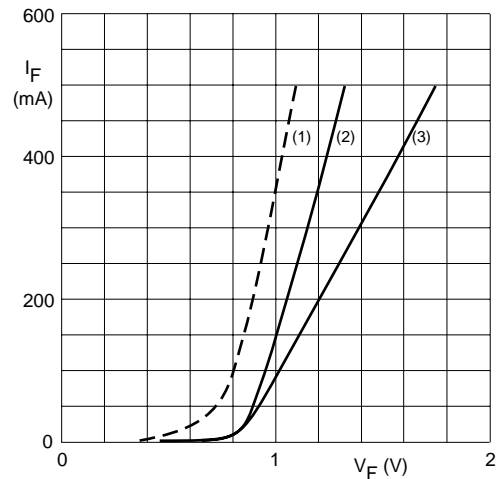
BAV23S

■ Typical Characteristics



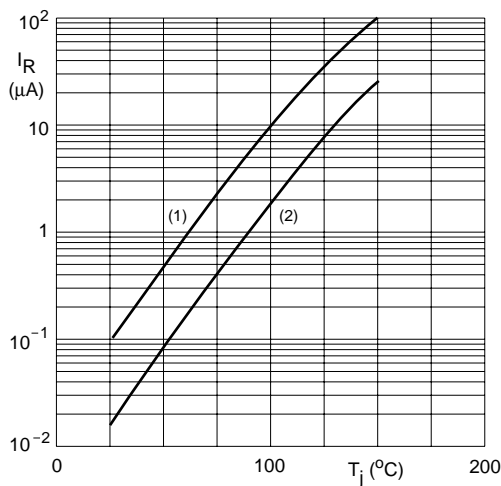
Device mounted on an FR4 printed-circuit board.

Fig.1 Maximum permissible continuous forward current as a function of ambient temperature.



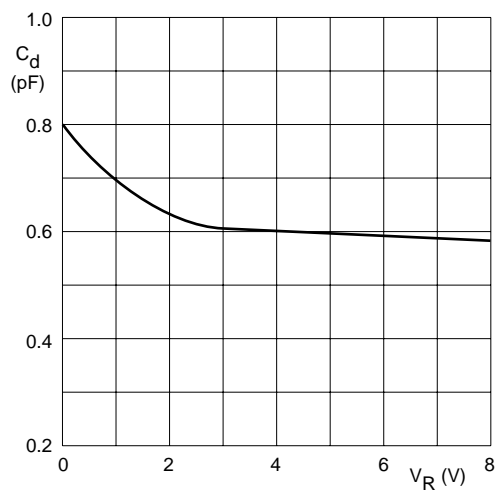
- (1) $T_j = 150$ °C; typical values.
- (2) $T_j = 25$ °C; typical values.
- (3) $T_j = 25$ °C; maximum values.

Fig.2 Forward current as a function of forward voltage.



- (1) $V_R = 200$ V; maximum values.
- (2) $V_R = 200$ V; typical values.

Fig.4 Reverse current as a function of junction temperature.



$f = 1$ MHz; $T_j = 25$ °C.

Fig.5 Diode capacitance as a function of reverse voltage; typical values.

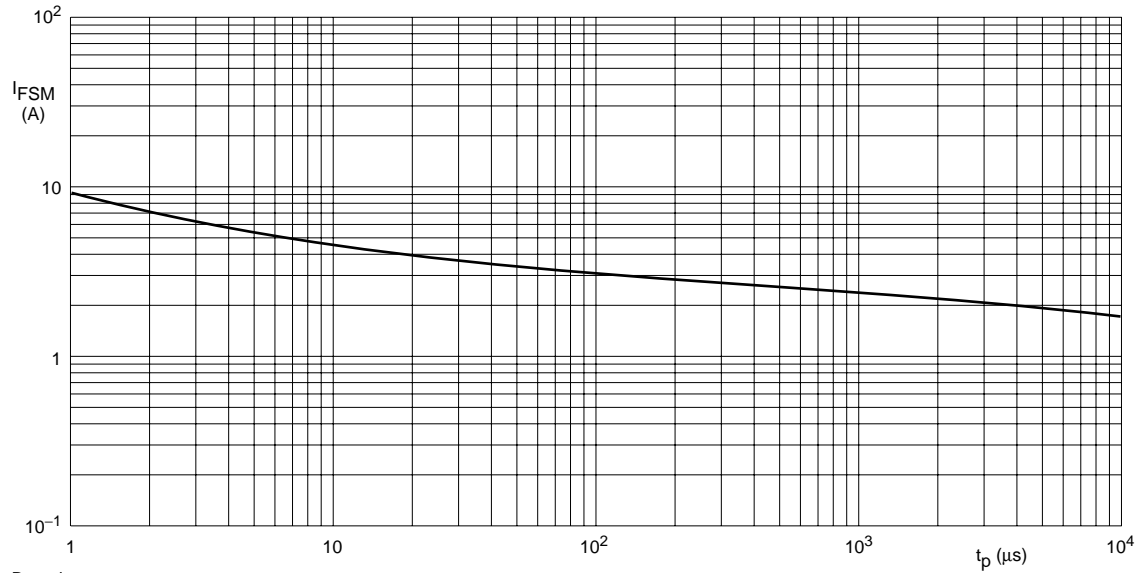
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Fig.3 Maximum permissible non-repetitive peak forward current as a function of pulse duration.