

EVVOSEMI[®]

THINK CHANGE DO



ESD



TVS



MOS



LDO



Diode



Sensor



DC-DC

Product Specification

▶ Domestic	Part Number	EVBAV70-S1
▶ Overseas	Part Number	BAV70
▶ Equivalent	Part Number	BAV70

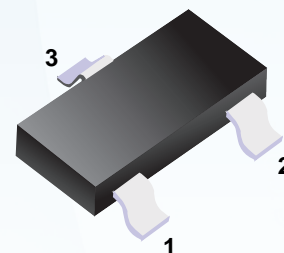
"S1" means SOT-23

EV is the abbreviation of name EVVO

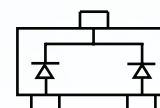
■ Switching Diodes

■ Features

- Small plastic SMD package.
- High switching speed: max.4 ns.
- Repetitive peak forward current: max.450 mA.



■ Simplified outline(SOT-23)



■ Marking

Marking	A4
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■ Absolute Maximum Ratings Ta = 25°C

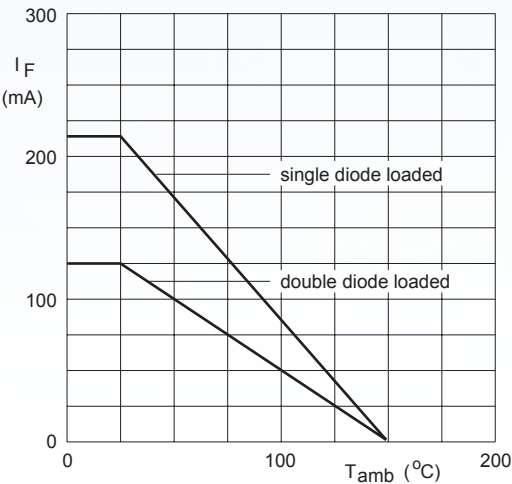
Parameter	Symbol	Rating	Unit
Repetitive peak reverse voltage	V _{RRM}	85	V
Continuous reverse voltage	V _R	75	V
Continuous forward current(single diode loaded *) (double diode loaded *)	I _F	215 125	mA
Repetitive peak forward current	I _{FRM}	450	mA
Non-repetitive peak forward current T _j =25 °C t=1 μs t=1ms t=1s	I _{FSM}	4	A
		1	
		0.5	
power dissipation *	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
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-65 to +150	°C

* Device mounted on an FR4 printed-circuit board.

■ Electrical Characteristics Ta = 25°C

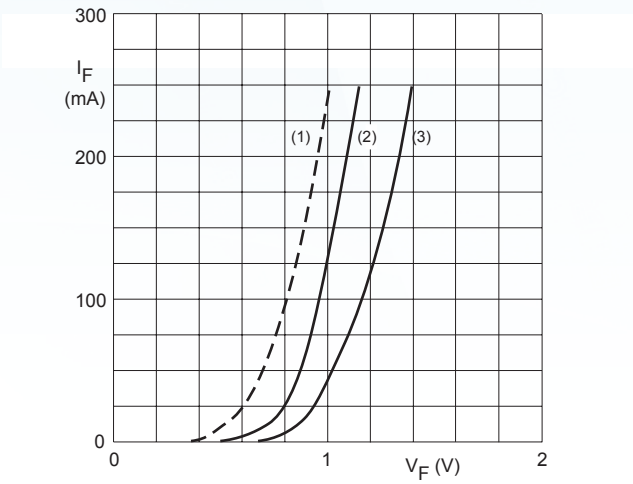
Parameter	Symbol	Test conditions	Max	Unit
Forward voltage	V _F	I _F = 1 mA	715	mV
		I _F = 10 mA	855	mV
		I _F = 50 mA	1	V
		I _F = 150 mA	1.25	V
Reverse current	I _R	V _R = 75 V	1	μA
		V _R = 25 V; T _j = 150 °C	30	
		V _R = 75 V; T _j = 150 °C	50	
Diode capacitance	C _d	V _R = 0 V, f = 1 MHz	1.5	pF
Reverse recovery time	t _{rr}	when switched from I _F = 10 mA to I _R = 10 mA; R _L = 100 Ω; measured at I _R = 1 mA	4	nS
Forward recovery voltage	V _{fr}	I _F = 10 mA, t _r = 20 ns	1.75	V

■ Typical Characteristics



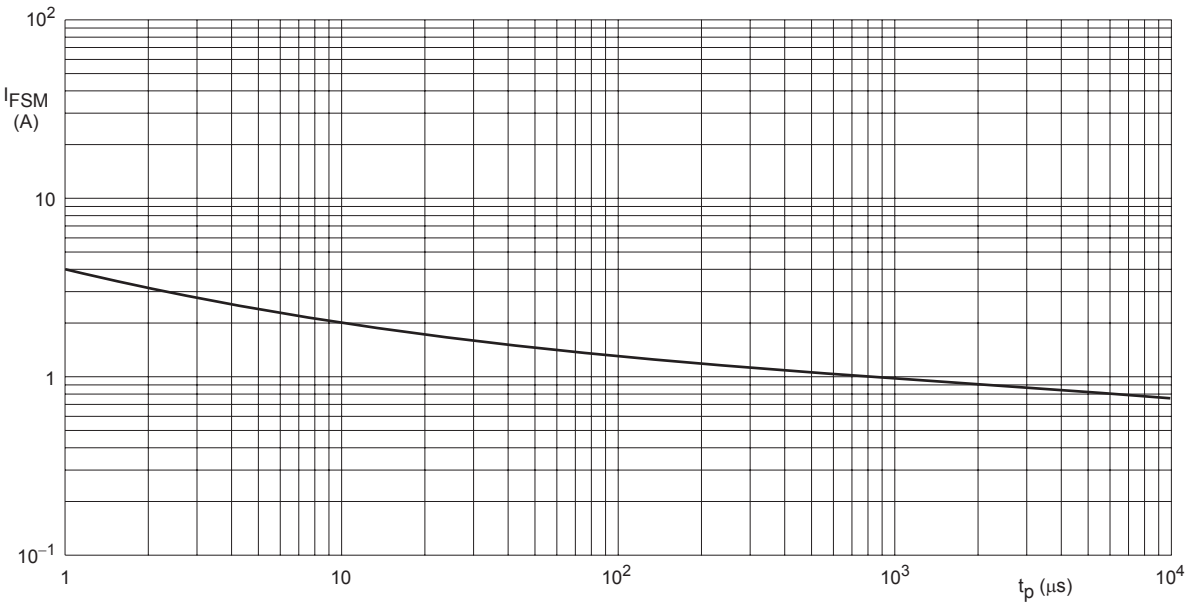
Device mounted on an FR4 printed-circuit board.

Fig.2 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.3 Forward current as a function of forward voltage.



Based on square wave currents.
 $T_j = 25$ °C prior to surge.

Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.

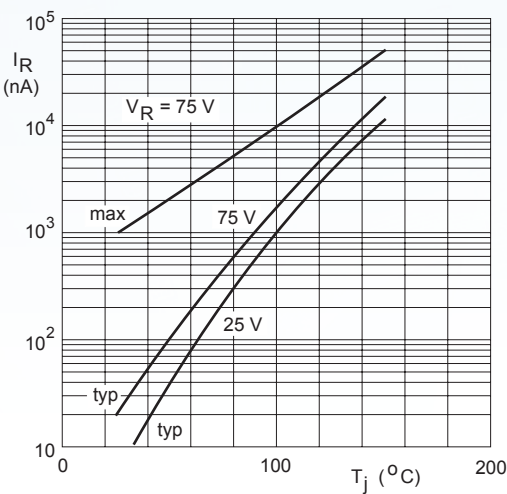
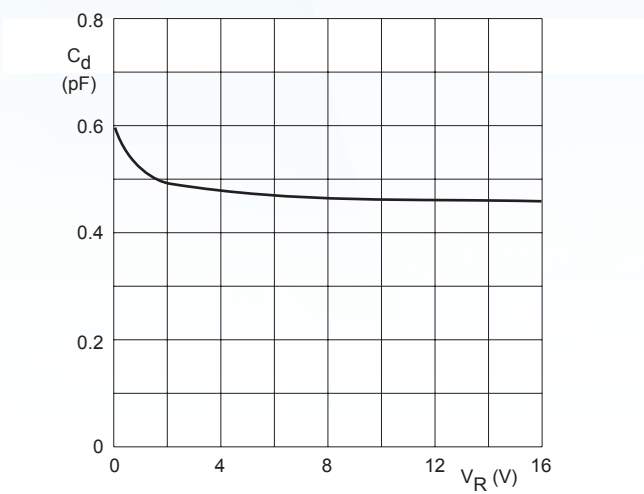


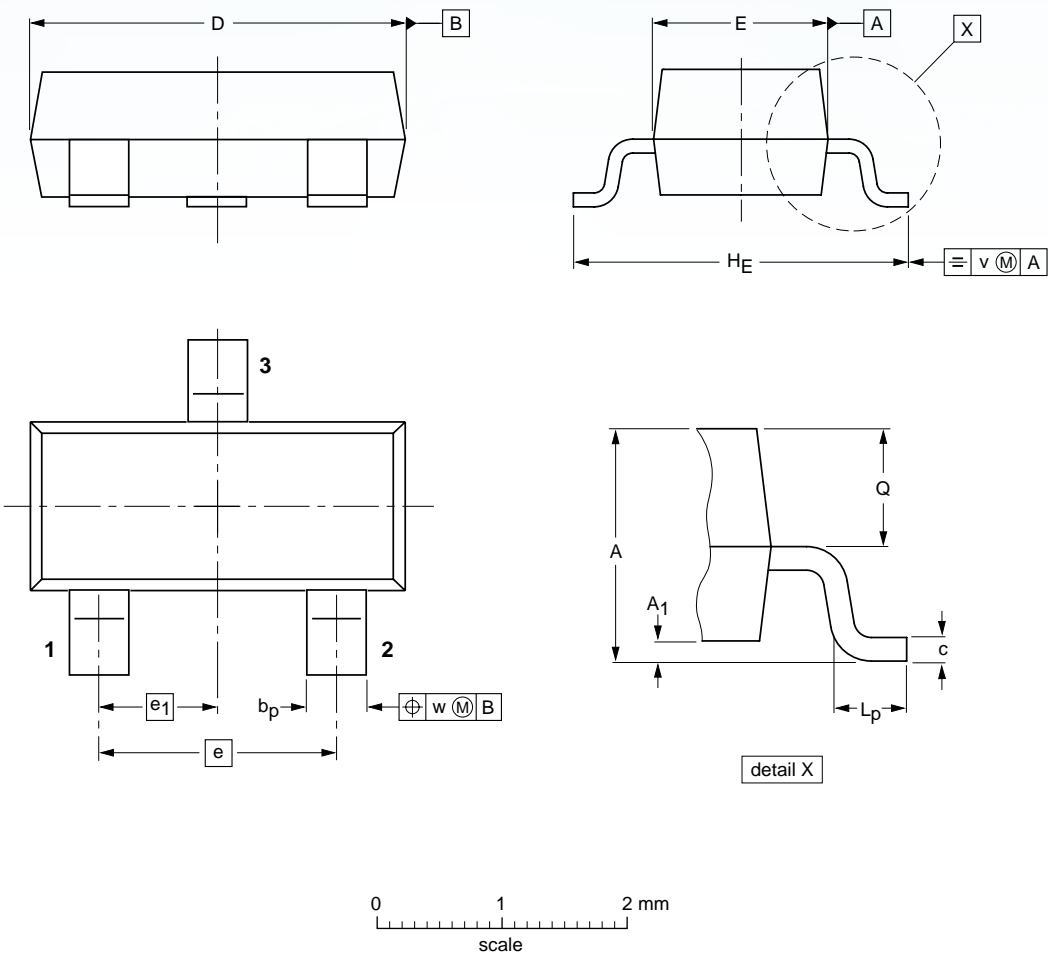
Fig.5 Reverse current as a function of junction temperature.



$f = 1\text{ MHz}$; $T_j = 25\text{ }^{\circ}\text{C}$.

Fig.6 Diode capacitance as a function of reverse voltage; typical values.

■ SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

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