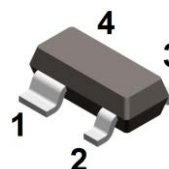
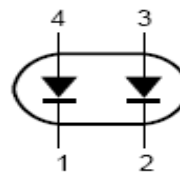




FEATURES

- Continuous reverse voltage: max.200V
- Switching speed: 50ns
- Repetitive peak reverse voltage: max.250V
- Repetitive peak forward current: max.625mA


SOT-143

APPLICATIONS

- General application

ORDERING INFORMATION

Type No.	Marking	Package Code
BAV23	L30	SOT-143

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Limits	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	250	V
Continuous Reverse Voltage	V_R	200	V
Continuous forward current	I_F	225	mA
single diodes		125	
Repetitive peak forward current	I_{FRM}	625	mA
Surge current	I_{FSM}	t=1μs	9
		t=1ms	3
		t=1s	1.7
Power Dissipation	P_D	250	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	271	°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	188	°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	197	°C/W
Operating Junction Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Note 1: The data tested by surface mounted on a 25.4mm * 25.4mm * 1mm FR4-epoxy P.C.B

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	200	-	-	V	$I_R = 100\mu A$
Forward Voltage	V_F	-	-	1.0 1.25	V	$I_F = 100mA$ $I_F = 200mA$
Forward Voltage series connection	V_F	-	-	2.0 2.5	V	$I_F = 100mA$ $I_F = 200mA$
Reverse Leakage Current	I_R	-	-	100 100	nA μA	$V_R = 200V$ $V_R = 200V, T_j = 150^\circ C$
Reverse Leakage Current series connection	I_R	-	-	100 100	nA μA	$V_R = 400V$ $V_R = 400V, T_j = 150^\circ C$
Diodes Capacitance series connection	C_d	-	-	5 2.5	pF	$V_R = 0V, f = 1.0MHz$
Reverse Recovery Time	t_{rr}	-	-	50	ns	$I_F = I_R = 10mA, I_{tr} = 0.1 * I_R$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

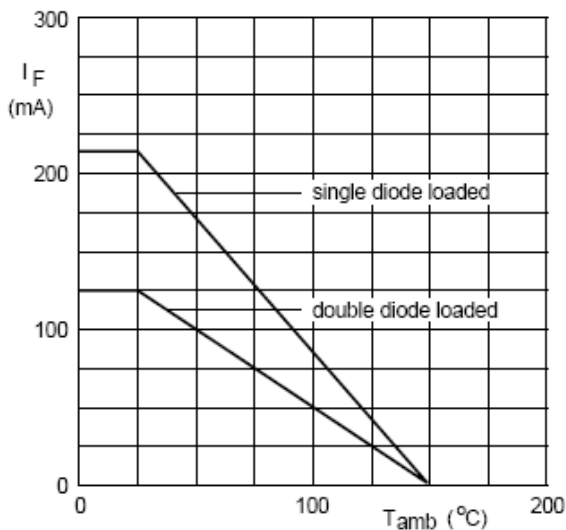
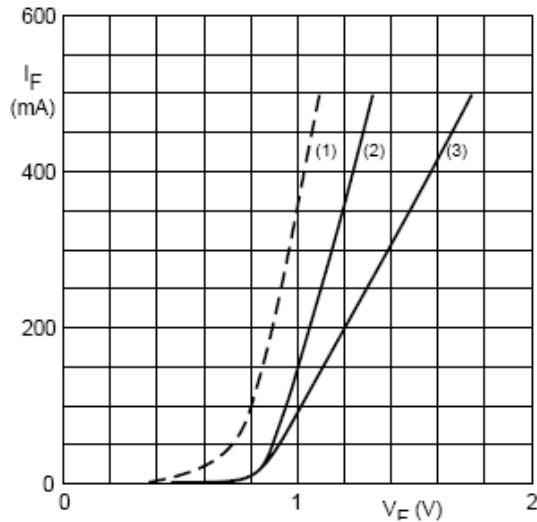


Fig.2 Maximum permissible continuous forward current as a function of ambient temperature.



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

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

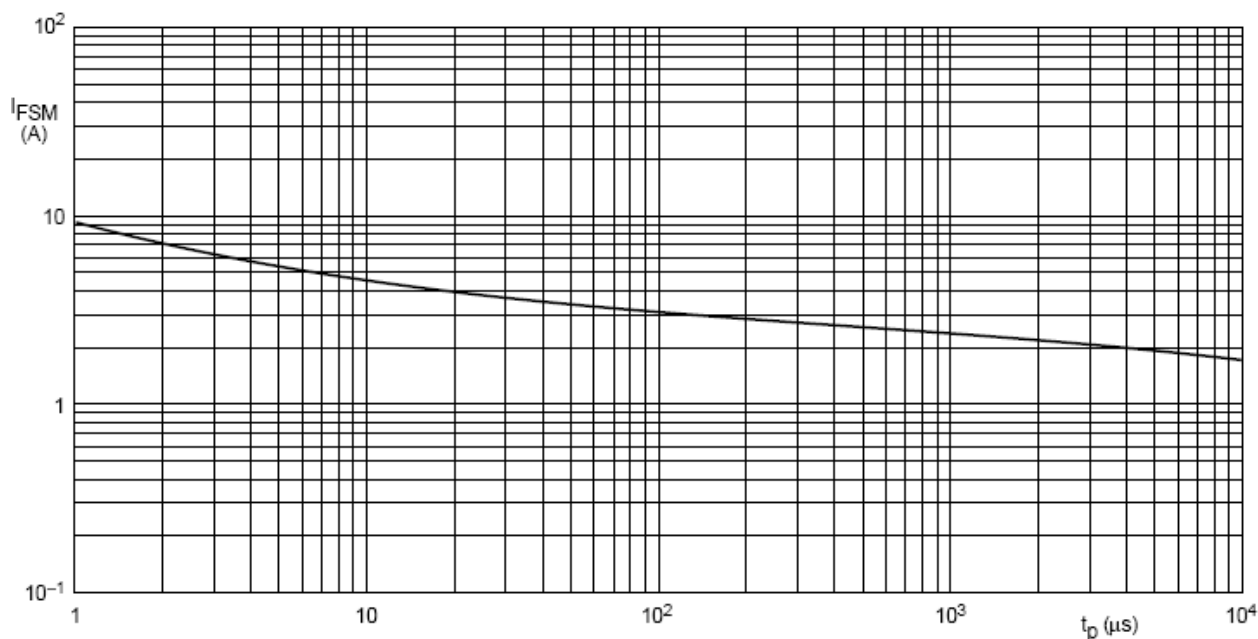
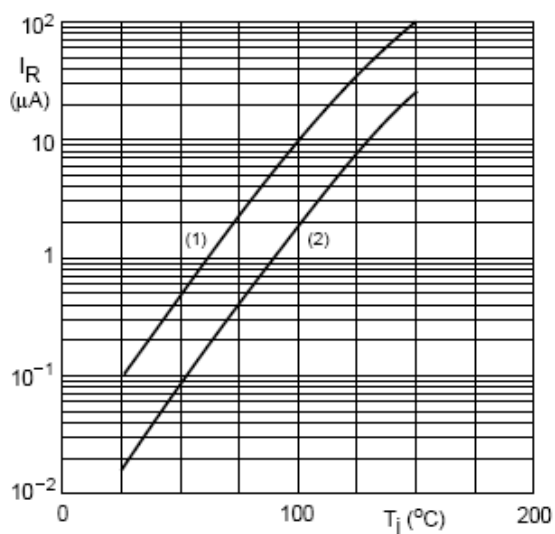
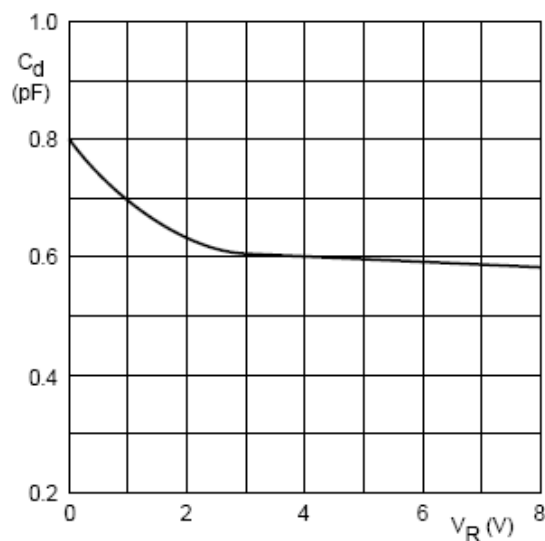


Fig.4 Maximum permissible non-repetitive peak forward current as a function of pulse duration.



- (1) $V_R = 200\text{ V}$; maximum values.
 (2) $V_R = 200\text{ V}$; typical values.

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

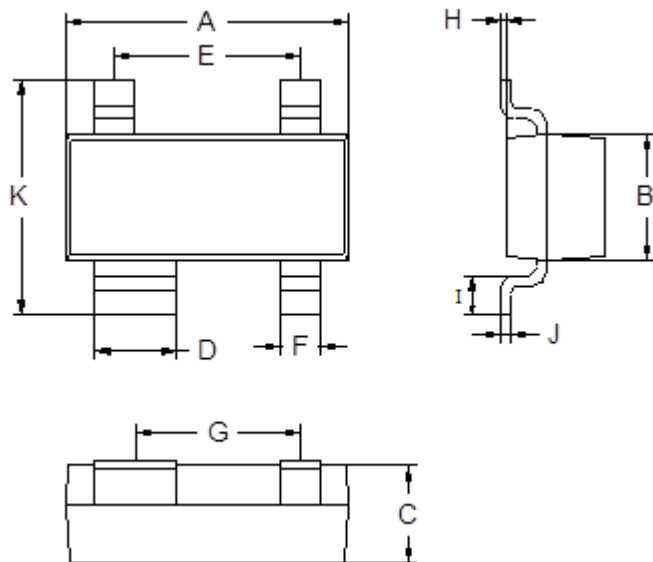


$f = 1\text{ MHz}$; $T_j = 25\text{ }^{\circ}\text{C}$.

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

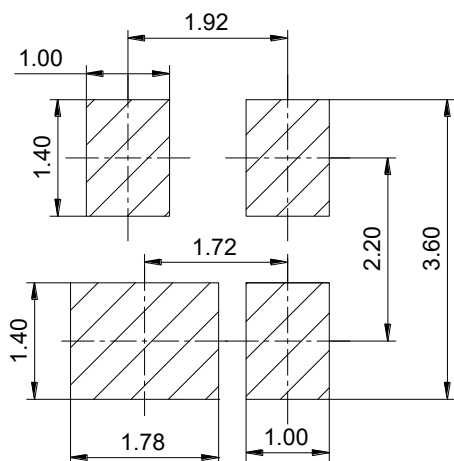
PACKAGE OUTLINE

Plastic surface mounted package



SOT-143		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.78	0.88
E	1.80	2.00
F	0.37	0.43
G	1.59	1.79
H	0.02	0.10
I	0.35	0.48
J	0.05	0.15
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
BAV23	SOT-143	3000pcs / Tape & Reel