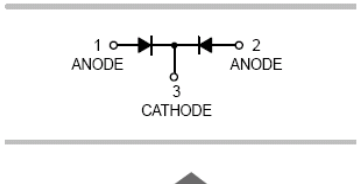
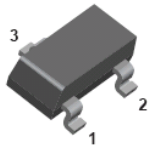
Low-leakage double diode **BAV170**

FEATURES

- Plastic SMD package
- Low leakage current: typ. 3pA
- Switching time: typ. 0.8 ms
- Continuous reverse voltage: max. 75V
- Repetitive peak reverse voltage: max. 85V
- Repetitive peak forward current: max. 500mA.

Lead-free





SOT-23

APPLICATIONS

- Low-leakage current applications in surface mounted circuits.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAV170	JX	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

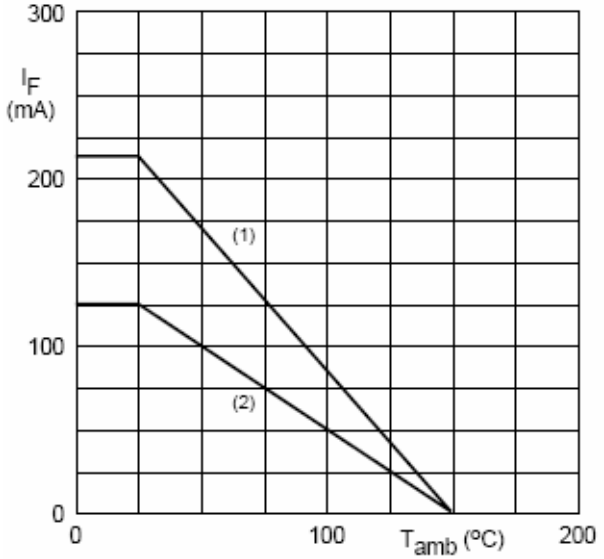
Characteristic	Symbol	Limits	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
DC Reverse Voltage	V_R	75	V
Forward Continuous Current single diode loaded double diode loaded	I_F	215 125	mA
repetitive peak forward current	I_{FRM}	500	mA
non-repetitive peak forward current square wave; T_j=25C prior to surge; t_p=1μs t_p=1ms t_p=1s	I_{FSM}	4 1 0.5	A
Total Power Dissipation	P_{tot}	250	mW
Operating Junction Temperature Range	T_j	150	℃
Storage Temperature Range	T_{STG}	-65 to +125	℃

Low-leakage double diode **BAV170**

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

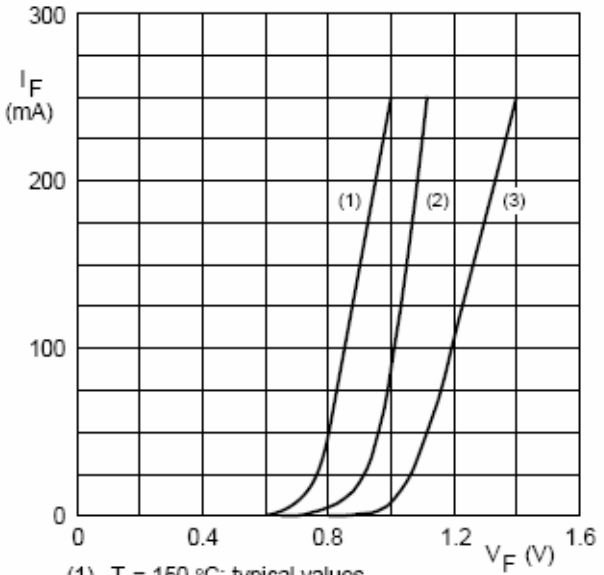
Characteristic	Symbol	Typ	MAX	UNIT	Test Condition
Forward Voltage	V_F		900 1000 1100 1250	mV	I_F=1mA I_F=10mA I_F=50mA I_F=100mA
Reverse Leakage Current	I_R		5 80	nA	V_R=75V V_R=75V,T_J=150℃
Junction Capacitance	C_j		2.0	pF	V_R=0V,f=1.0MHz
Reverse Recovery Time	t_{rr}		3	μs	I_F=I_R=10mA,I_{rr}=0.1*I_R

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified



Device mounted on a FR4 printed-circuit board.
(1) Single diode loaded.
(2) Double diode loaded.

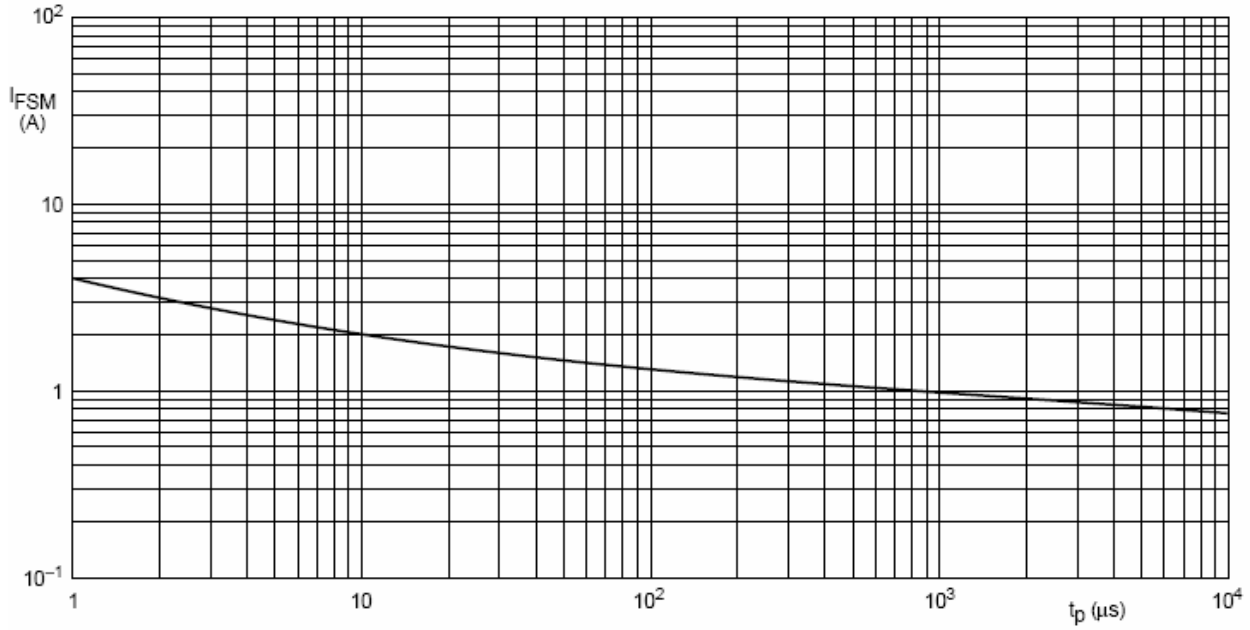
Maximum permissible continuous forward current as a function of ambient temperature.



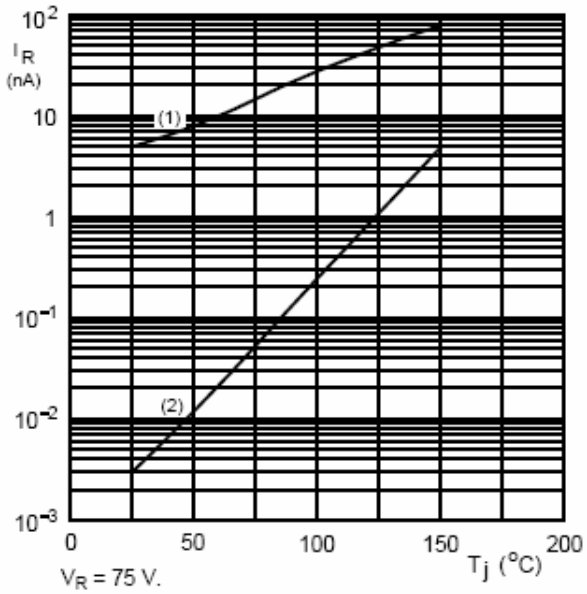
(1) T_j = 150 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

Forward current as a function of forward voltage; per diode.

Low-leakage double diode **BAV170**



Maximum permissible non-repetitive peak forward current as a function of pulse duration per diode.

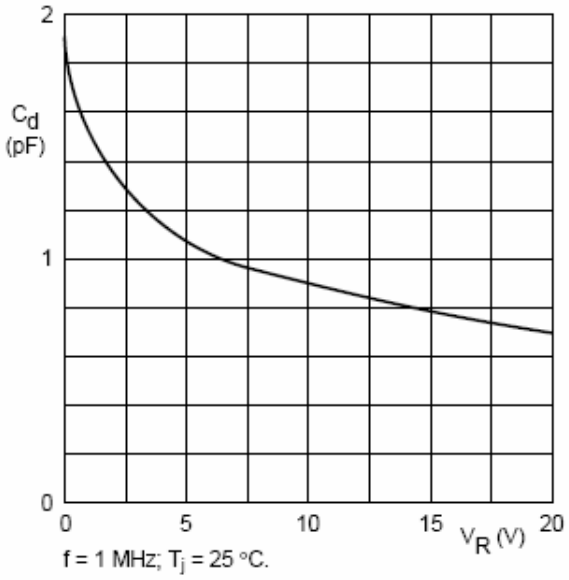


V_R = 75 V.

(1) Maximum values.

(2) Typical values.

Reverse current as a function of junction temperature; per diode.



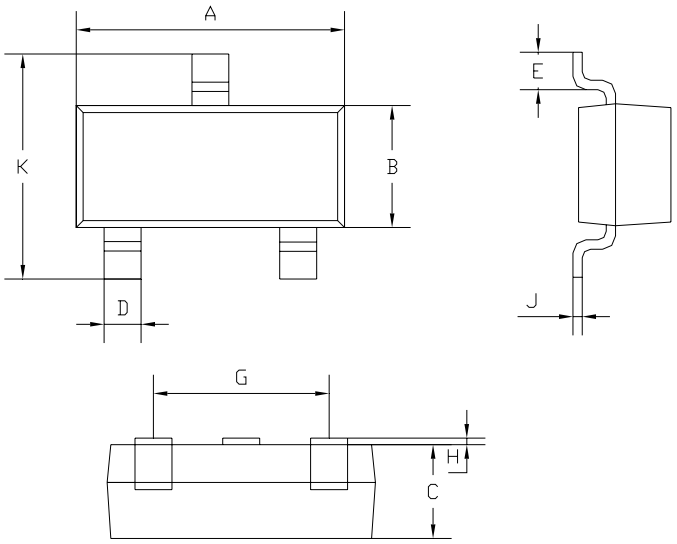
f = 1 MHz; T_j = 25 °C.

Diode capacitance as a function of reverse voltage; per diode; typical values.

Low-leakage double diode **BAV170**

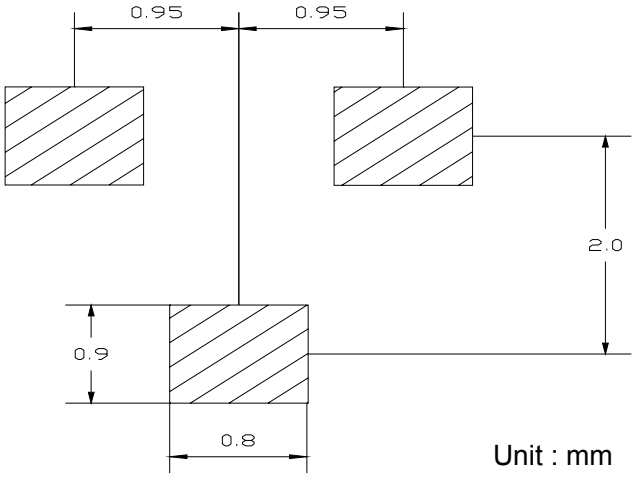
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAV170	SOT-23	3000/Tape&Reel