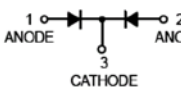
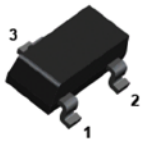
Low-Leakage Double Diode

Features:

- Plastic SMD Package
- Low Leakage Current : typ. 3pA
- Switching Time : Typ. 0.8 ms
- Continuous Reverse Voltage : 75V Max.
- Repetitive Peak Reverse Voltage : 85V Max.
- Repetitive Peak Forward Current : 500mA Max.





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Applications:

Low-leakage current applications in surface mounted circuits

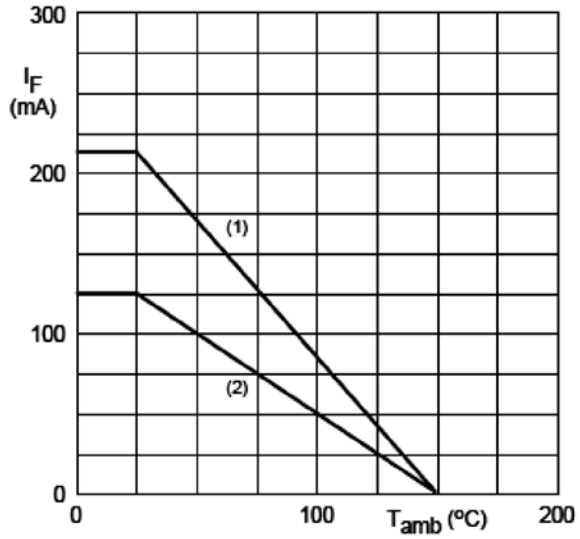
Max. Rating @ T_A = 25°C unless otherwise specified

Parameter	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; tp=1µs tp=1ms tp=1s	I_{FSM}	4 1 0.5	A
Total power dissipation	P_{tot}	250	mW
Operating junction temperature range	T_j	150	°C
Storage temperature range	T_{STG}	-65 to +125	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

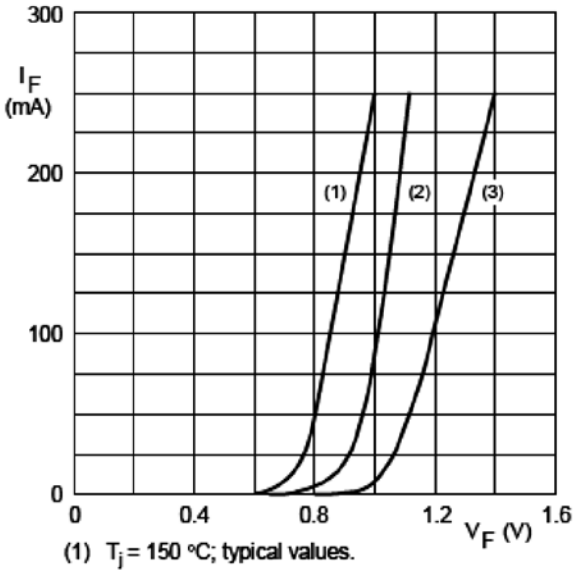
Parameter	Symbol	Conditions	Min.	Max.	Unit
Forward voltage	V_F	I_F = 1mA I_F = 10mA I_F = 50mA I_F = 100mA	-	900 1,000 1,100 1,250	mV
Reverse leakage current	I_R	V_R = 75V V_R = 75V, T_J=150°C	-	5 80	nA
Junction capacitance	C_J	V_R = 0V, f = 1MHz	-	2	pF
Reverse recovery time	trr	I_F = I_R = 10mA, Irr = 0.1 × I_R	-	3	µs

Typical Characteristics @ T_A = 25°C unless otherwise specified



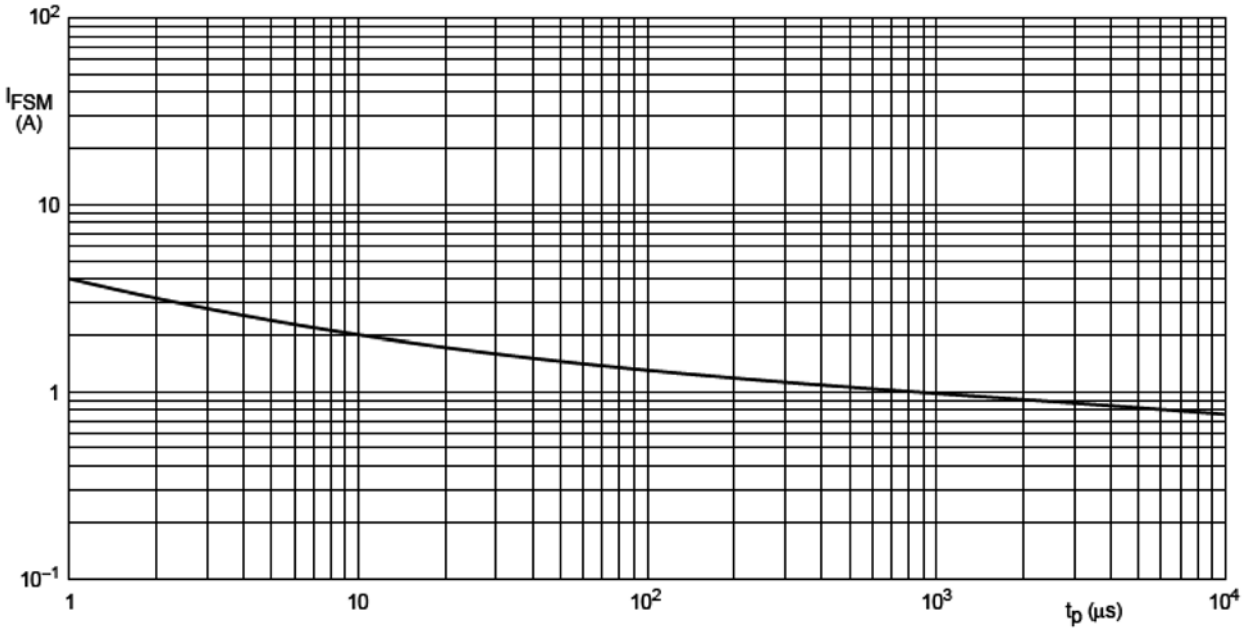
Device mounted on a FR4 printed-circuit board.
(1) Single diode loaded.
(2) Double diode loaded.

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

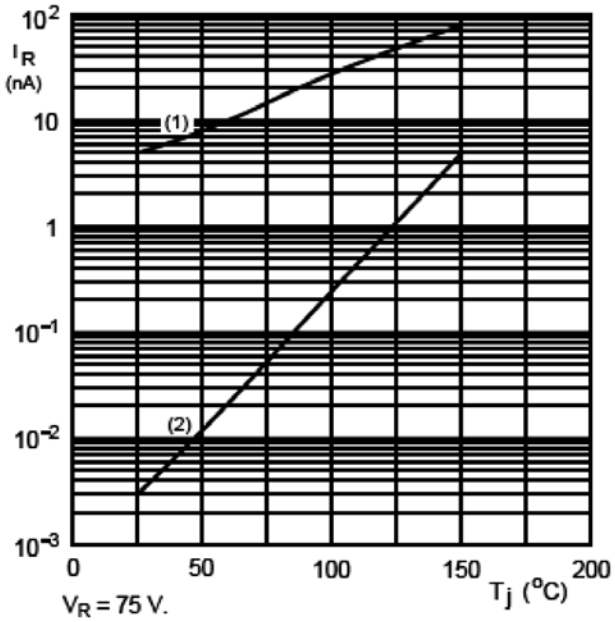


(1) T_j = 150 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

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

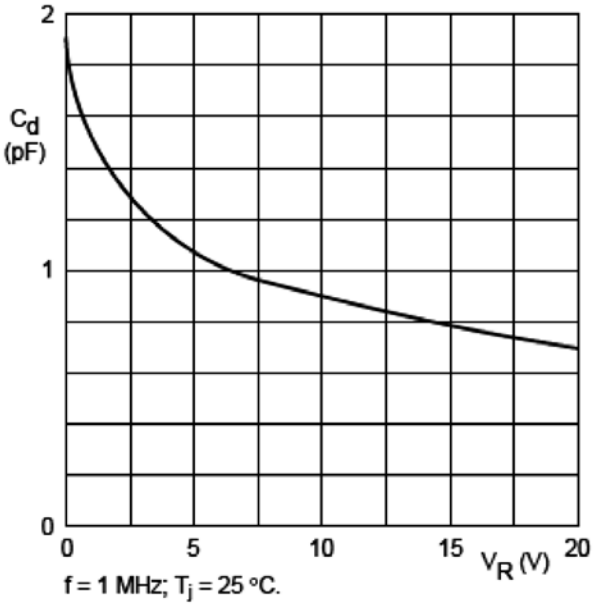


Maximum permissible non-repetitive peak forward current as a function of pulse duration per diode.



V_R = 75 V.
(1) Maximum values.
(2) Typical values.

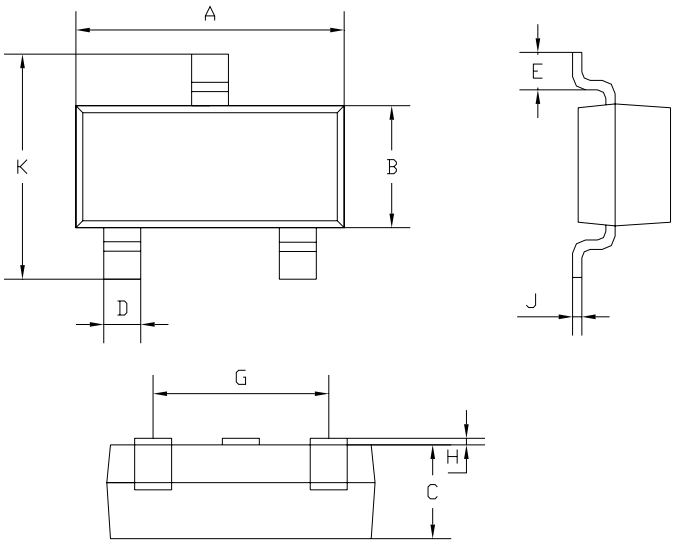
Reverse current as a function of junction temperature; per diode.



f = 1 MHz; T_j = 25 °C.

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

Plastic surface mounted package



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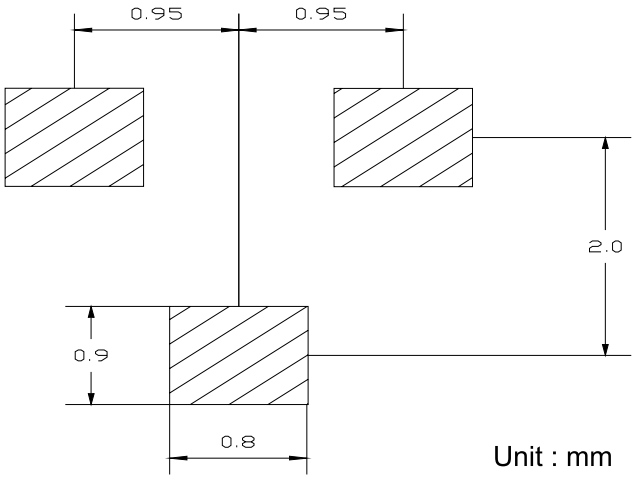
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

Soldering Footprint



Unit : mm

Package Information

Device	Package	Shipping
BAV170-7-F	SOT-23	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Low-leakage double diode	BAV170-7-F