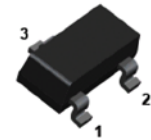
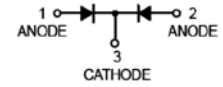


Low-Leakage Double Diode



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.



SOT-23

Applications:

Low-leakage current applications in surface mounted circuits

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

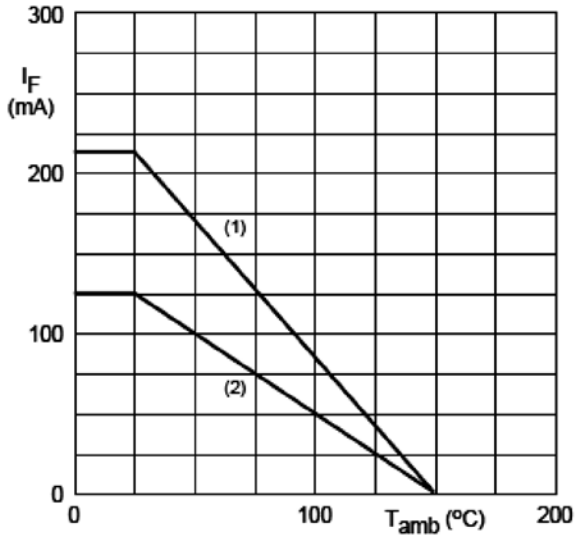
Parameter	Symbol	Limits	Unit
Repetitive peak reverse voltage	V_{RRM}	85	V
DC Reverse Voltage	V_R	75	V
Forward continuous current	I_F	215	mA
Single diode loaded		125	
Double diode loaded			
Repetitive peak forward current	I_{FRM}	500	mA
Non-Repetitive peak forward current square wave; $T_j = 25^\circ\text{C}$ prior to surge;	I_{FSM}	4	A
$t_p = 1\mu\text{s}$		1	
$t_p = 1\text{s}$		0.5	
Total power dissipation	P_{tot}	250	mW
Operating junction temperature range	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +125	$^\circ\text{C}$

Electrical Characteristics @ TA = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Max.	Unit
Forward voltage	V_F	$I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 100\text{mA}$	-	900 1,000 1,100 1,250	mV
Reverse leakage current	I_R	$V_R = 75\text{V}$ $V_R = 75\text{V}, T_j = 150^\circ\text{C}$	-	5 80	nA
Junction capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	2	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10\text{mA}$, $I_{rr} = 0.1 \times I_R$	-	3	μs

Low-Leakage Double Diode

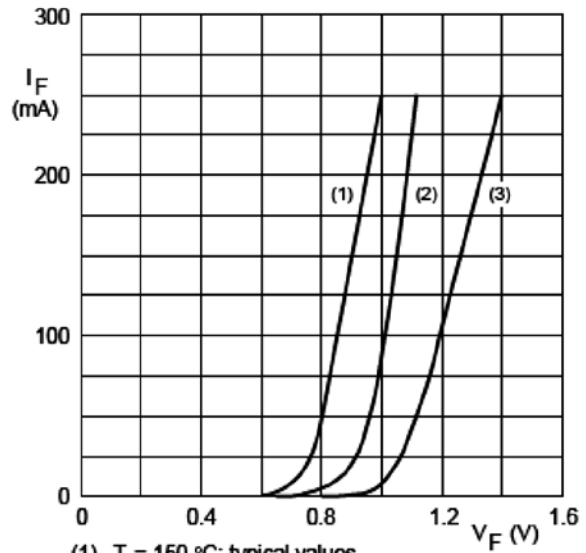
Typical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified



Device mounted on a FR4 printed-circuit board.

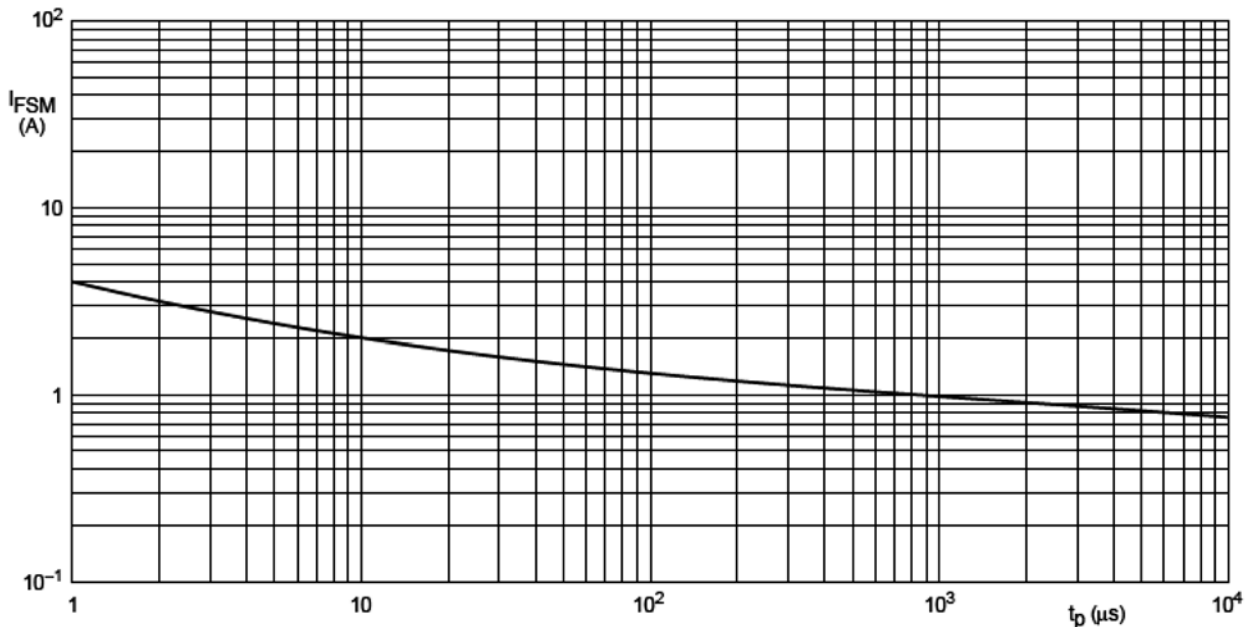
- (1) Single diode loaded.
- (2) Double diode loaded.

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



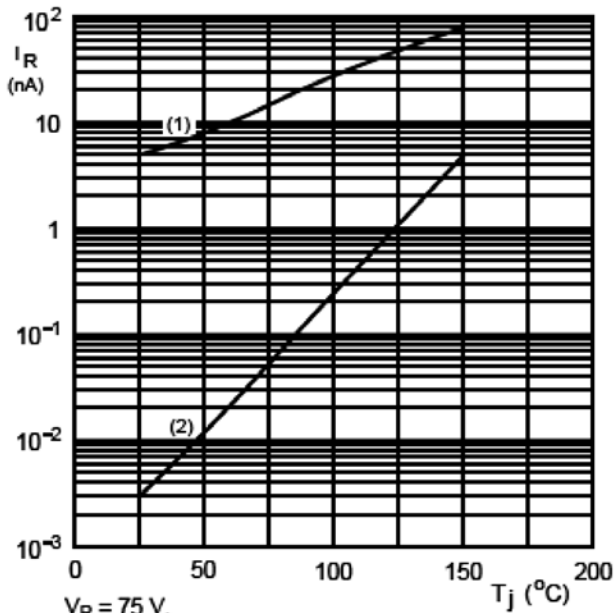
- (1) $T_j = 150^\circ\text{C}$; typical values.
- (2) $T_j = 25^\circ\text{C}$; typical values.
- (3) $T_j = 25^\circ\text{C}$; maximum values.

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.

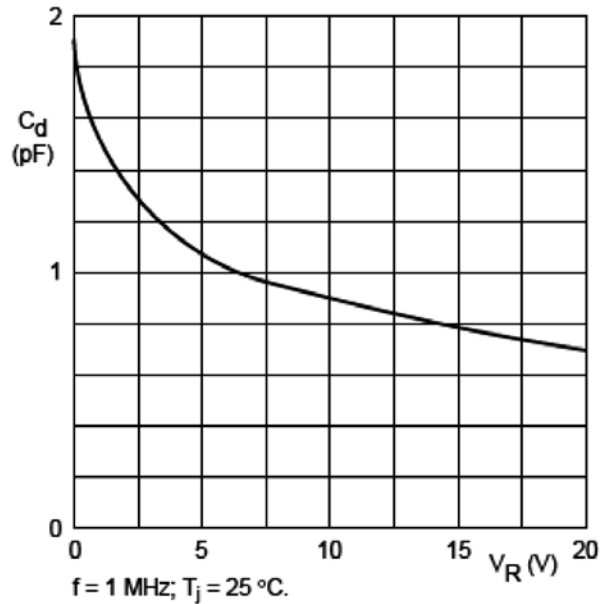
Low-Leakage Double Diode



(1) Maximum values.

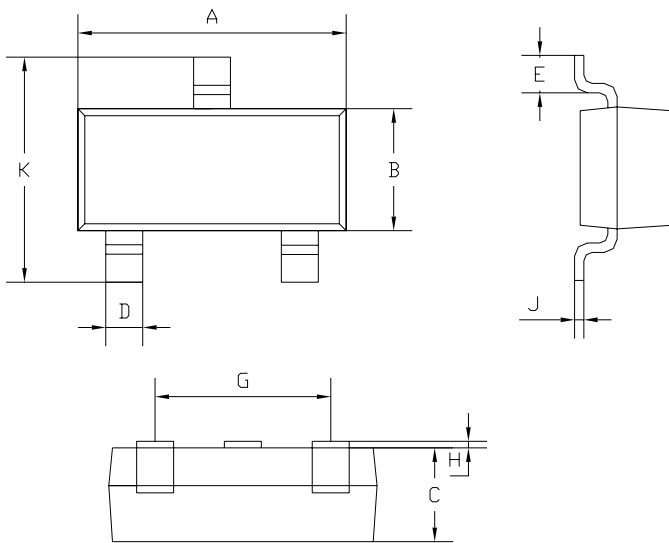
(2) Typical values.

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



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

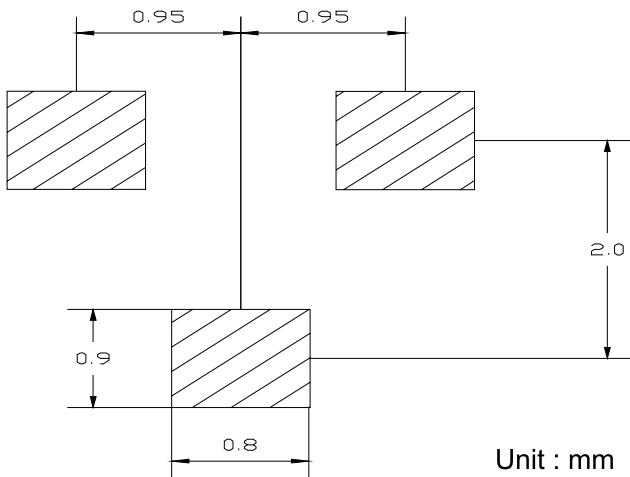
Plastic surface mounted package



SOT-23		
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	0.1 Typical	
K	2.35	2.45
All Dimensions in mm		

Low-Leakage Double Diode

Soldering Footprint



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

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