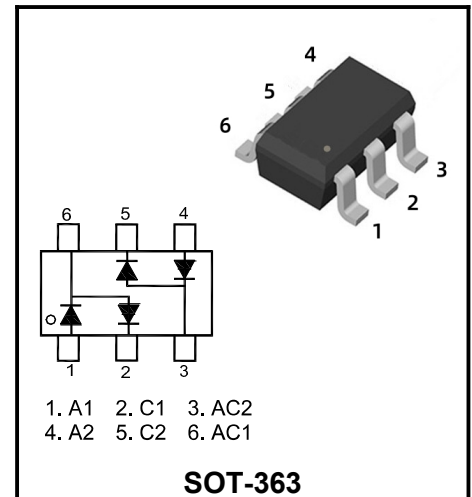


Silicon Epitaxial Planar Switching Diode

Marking Code	
BAV99DW	.A7



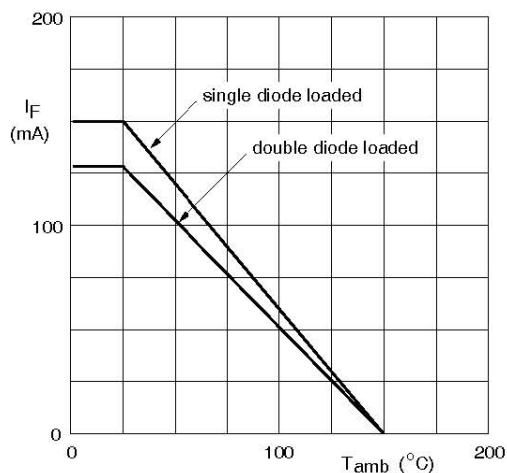
Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Reverse Voltage	V_R	75	V
Continuous Forward Current	I_F	150	mA
Single Diode Load		130	
Double Diode Load			
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	4	A
at $t = 1 \mu s$		1	
at $t = 1 ms$		0.5	
at $t = 1 s$			
Total Power Dissipation	P_{tot}	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Electrical Characteristics (Ta=25°C unless otherwise specified.)

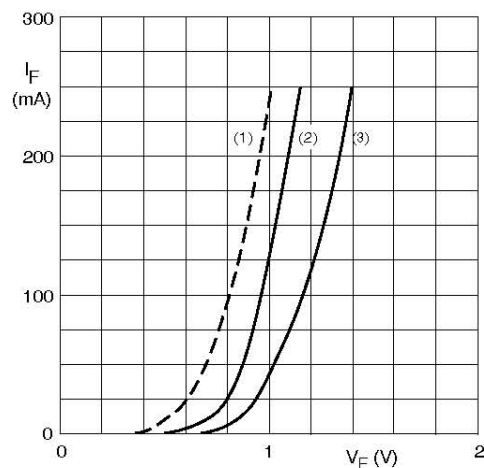
Parameter	Symbol	Max.	Unit
Forward Voltage	V_F	0.715	V
at $I_F = 1 mA$		0.855	
at $I_F = 10 mA$		1	
at $I_F = 50 mA$		1.25	
at $I_F = 150 mA$			
Reverse Current	I_R	30	nA
at $V_R = 25 V$		1	μA
at $V_R = 75 V$		30	μA
at $V_R = 25 V, T_j = 150^\circ C$		50	μA
at $V_R = 75 V, T_j = 150^\circ C$			
Diode Capacitance	C_d	1.5	pF
at $V_R = 0, f = 1 MHz$			
Reverse Recovery Time	t_{rr}	4	ns
at $I_F = I_R = 10 mA, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			

Typical Characteristics



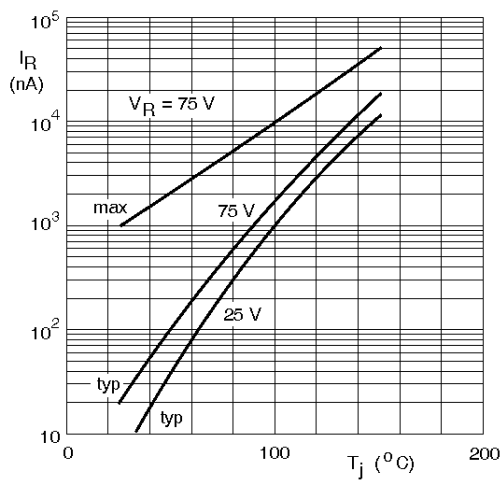
Device mounted on an FR4 printed-circuit board.

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

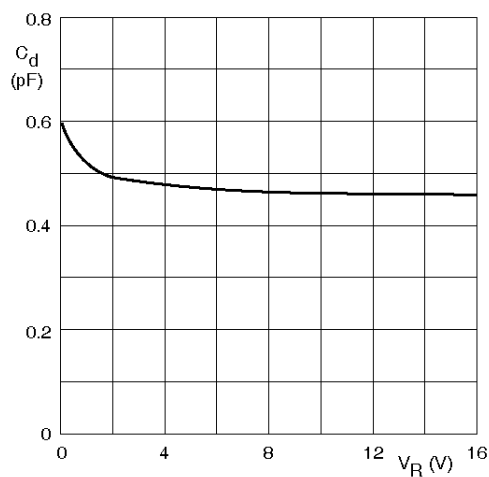


- (1) $T_j = 150$ °C; typical values.
- (2) $T_j = 25$ °C; typical values.
- (3) $T_j = 25$ °C; maximum values.

Forward current as a function of forward voltage.



Reverse current as a function of junction temperature.



$f = 1$ MHz; $T_j = 25$ °C.

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

Ordering information

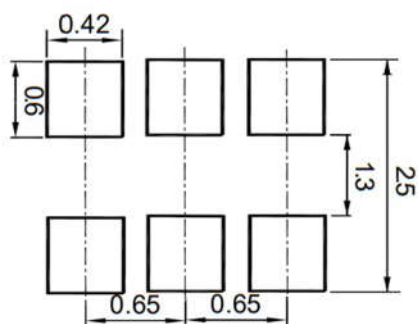
Package	Packing Description	Packing Quantity
SOT-363	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOT-363

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
A1	-	0.1	-	3.94
bp	0.20	0.30	7.87	11.81
c	0.10	0.25	3.94	9.84
D	1.8	2.2	70.87	86.61
E	1.15	1.35	45.28	53.15
e	1.3		51.18	
e1	0.65		25.6	
HE	2.0	2.2	78.74	86.6
Lp	0.15	0.45	5.90	17.71
Q	0.15	0.25	5.90	9.84
v	0.2		7.78	
w	0.2		7.78	
y	0.1		3.94	

The recommended mounting pad size



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