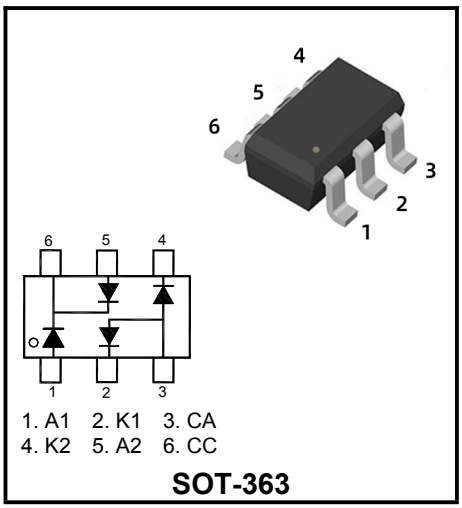
Silicon Epitaxial Planar Switching Diode



Features

- High speed
- High switching speed

Marking Code	
BAV756DW	.KCA

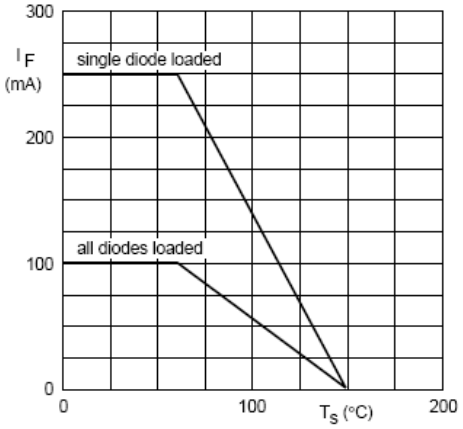
Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	90	V
Reverse Voltage	V_R	90	V
Continuous Forward Current — Single Diode Loaded All Diodes Loaded	I_F	250 100	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current — at t = 1 μs at t = 1 ms at t = 1 s	I_{FSM}	4 1 0.5	A
Total Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_j	- 65 to + 150	℃
Storage Temperature Range	T_{stg}	- 65 to + 150	℃

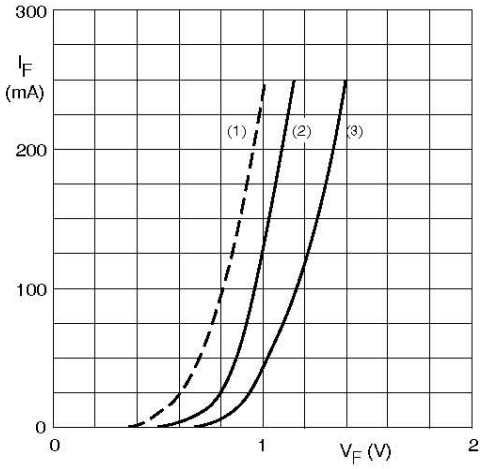
Electrical Characteristics (Ta=25℃ unless otherwise specified.)

Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 1 mA at I_F = 10 mA at I_F = 50 mA at I_F = 150 mA	V_F	 0.715 0.855 1 1.25	V
Reverse Current at V_R = 25 V at V_R = 80 V at V_R = 25 V, T_j = 150°C at V_R = 80 V, T_j = 150°C	I_R	 30 0.5 30 150	 nA μA μA μA
Diode Capacitance at V_R = 0, f = 1 MHz	C_d	2	pF
Reverse Recovery Time at I_F = I_R = 10 mA, I_{rr} = 0.1 X I_R , R_L = 100 Ω	t_{rr}	4	ns

Typical Characteristics

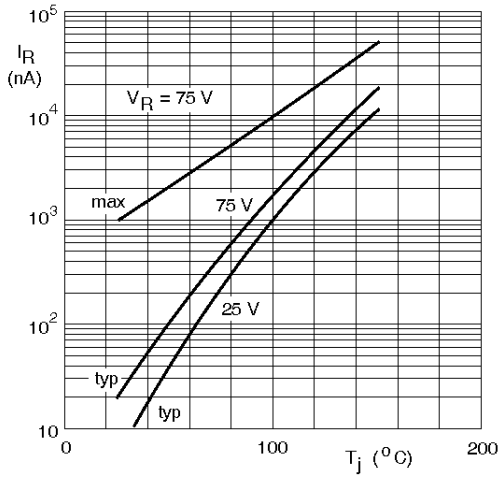


Maximum permissible continuous forward current as a function of soldering point temperature.

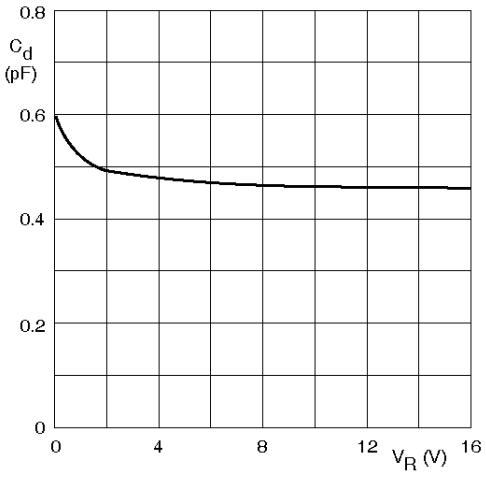


(1) T_j = 150 °C; typical values.
(2) T_j = 25 °C; typical values.
(3) T_j = 25 °C; maximum values.

Forward current as a function of forward voltage.



Reverse current as a function of junction temperature.



f = 1 MHz; T_j = 25 °C.

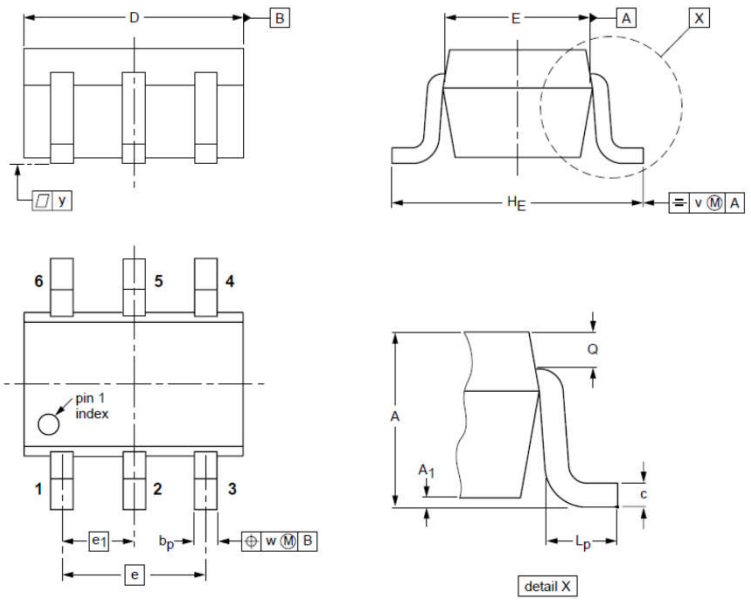
Diode capacitance as a function of reverse voltage; typical values.

Ordering information

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

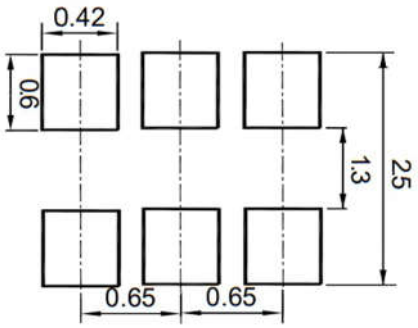
Package Dimensions

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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