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BAV70DW

Switching Diode

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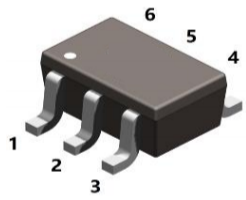
Features

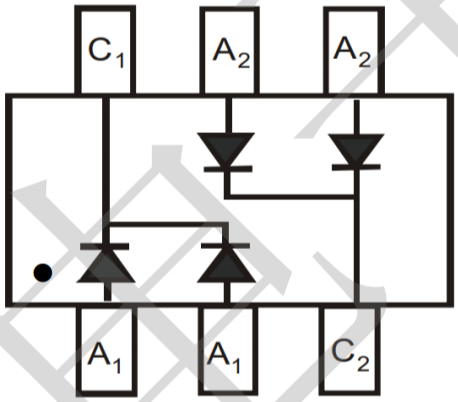
- Fast switching speed
- High conductance

Mechanical Data

- Case: SOT-363



SOT-363



BAV70DW

Ordering Information

Part Number	Package	Shipping Quantity
BAV70DW	SOT-363	3000 pcs / Tape & Reel

Maximum Ratings (@ T_A= 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}	75	V
DC Blocking Voltage	V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_o	150	mA
Non-repetitive peak forward surge current, 1μs	I_{FSM}	2	A
Non-repetitive peak forward surge current, 1s	I_{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	200	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	425	°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	330	°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	350	°C/W
Operating Junction Temperature Range	T_J	-65 ~ +150	°C
Storage Temperature Range	T_{STG}	-65 ~ +150	°C

Note 1: The data tested by surface mounted on a 1 inch^2 FR-4 board with 2OZ copper

Electrical Characteristics (@ T_A= 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 100μA	75	-	-	V
Forward Voltage	V_F	I_F = 1mA	-	-	0.715	V
		I_F = 10mA	-	-	0.855	V
		I_F = 50mA	-	-	1.000	V
		I_F = 150mA	-	-	1.250	V
Maximum Peak Reverse Current	I_R	V_R = 20V, T_J = 25°C	-	-	25	nA
		V_R = 75V	-	-	2.5	μA
		V_R = 25V, T_J = 125°C	-	-	30	μA
		V_R = 75V, T_J = 150°C	-	-	50	μA
Total Capacitance	C_J	V_R = 0V, f = 1.0MHz	-	-	2	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 10mA I_{rr} = 0.1×I_R, R_L = 100Ω	-	-	4	ns

Ratings and Characteristics Curves (@ T_A= 25°C unless otherwise specified)

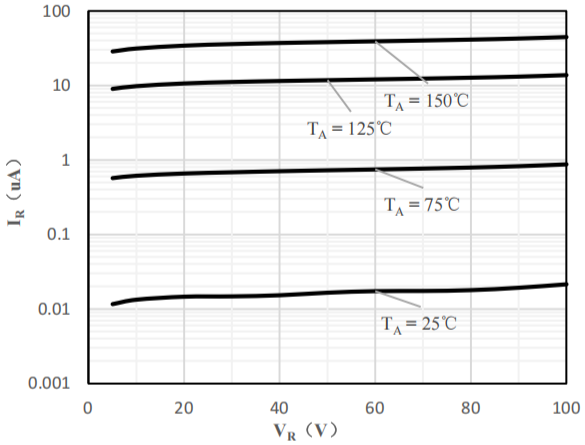


Fig 1 Typical Reverse Characteristic

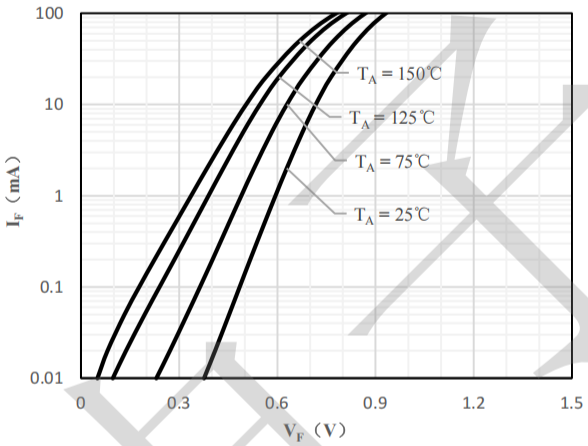


Fig 2 Typical Forward Characteristics

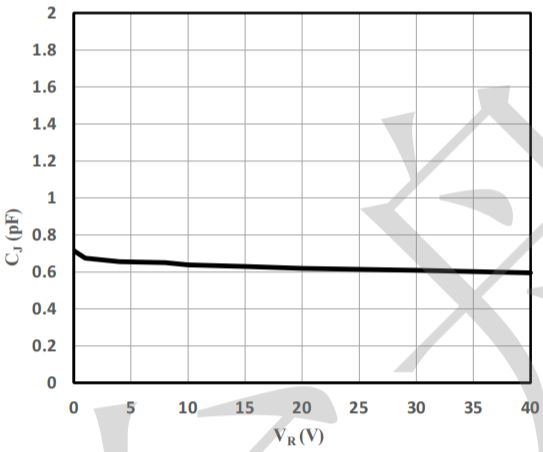


Fig 3 Capacitance vs. Reverse Voltage

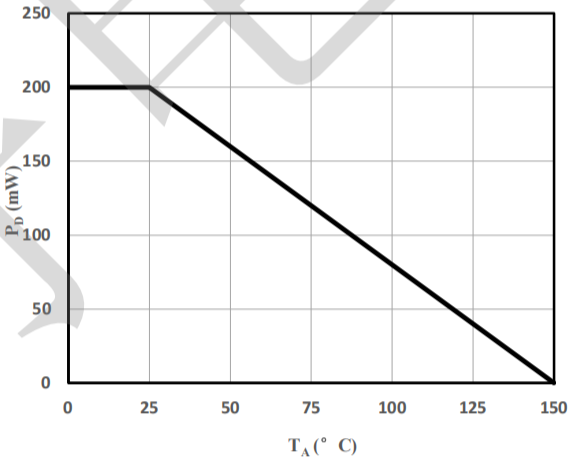
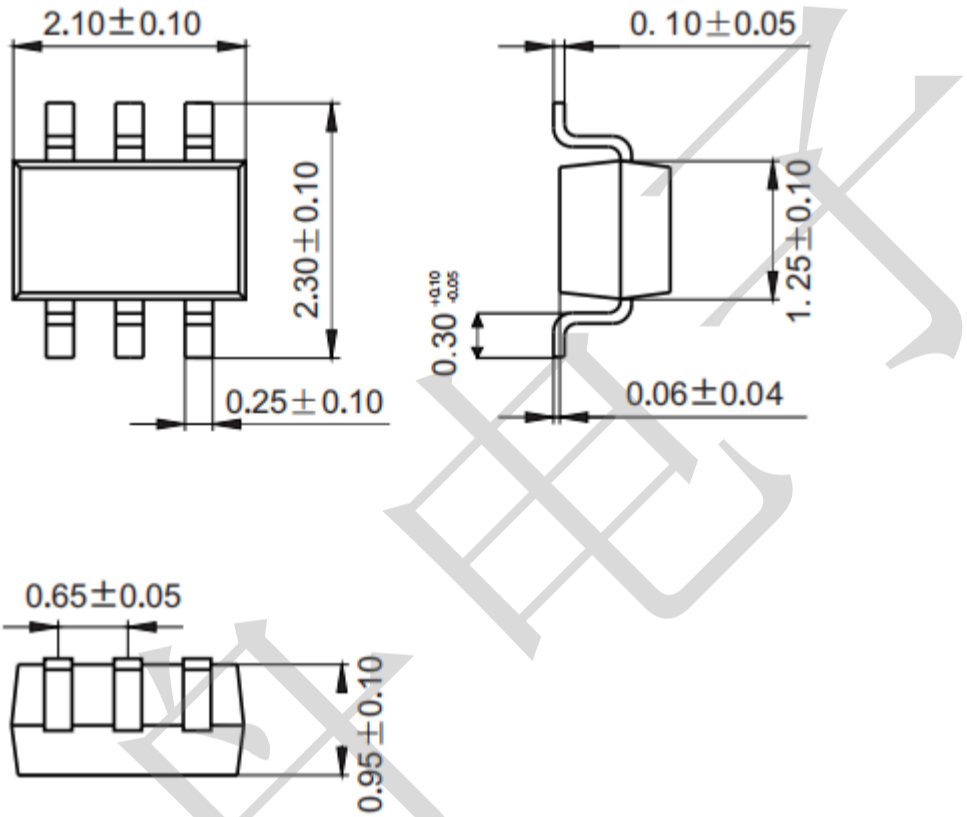


Fig 4 Power Derating Curve

Package Outline Dimensions (unit:mm)

SOT-363



Mounting Pad Layout (unit: mm)