

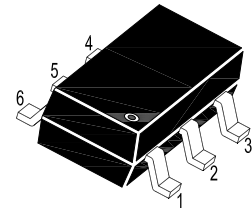
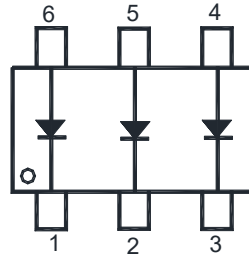
BAS21SDW-AH

Silicon Epitaxial Planar Diodes

High Voltage Switching Diodes

Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant



1. Cathode 2. Cathode 3. Cathode
4. Anode 5. Anode 6. Anode
SOT-363 Plastic package

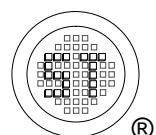
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	250	V
Continuous Forward Current	$I_{F(AV)}$	200	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-repetitive Peak Forward Surge Current	I_{FSM}	0.5 2.5	A
	at $t = 1\text{ s}$ at $t = 1\ \mu\text{s}$		
Power Dissipation	P_D	300	mW
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	417	$^\circ\text{C/W}$

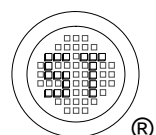
¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



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Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)}$	250	-	V
Forward Voltage at $I_F = 100 \text{ mA}$ at $I_F = 200 \text{ mA}$	V_F	- -	1 1.25	V V
Reverse Current at $V_R = 200 \text{ V}$ at $V_R = 200 \text{ V}, T_j = 150^\circ\text{C}$	I_R	- -	100 100	nA μA
Total Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	C_{tot}	-	5	pF
Reverse Recovery Time at $I_F = I_R = 30 \text{ mA}, I_{R(REC)} = 3 \text{ mA}, R_L = 100 \Omega$	t_{rr}	-	50	ns



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Electrical Characteristic Curve

Fig. 1 Power Derating Curve

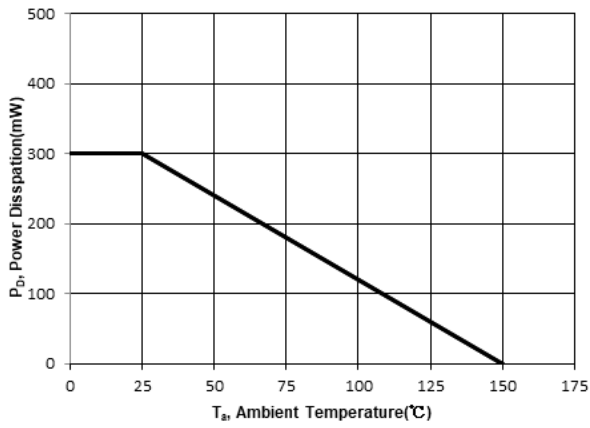


Fig. 2 Forward Characteristic Curve

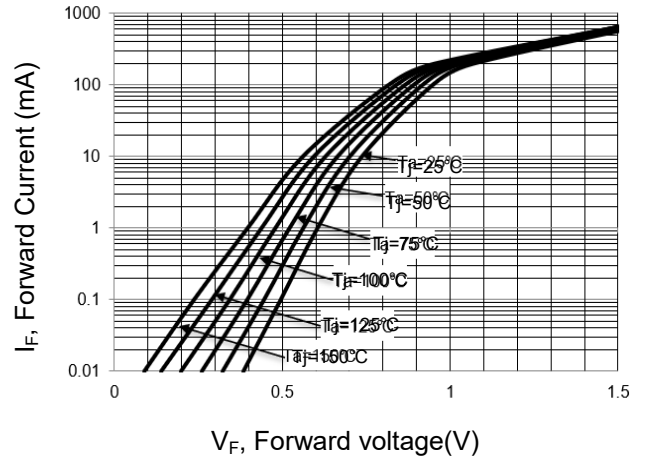


Fig. 3 Reverse Characteristic Curve

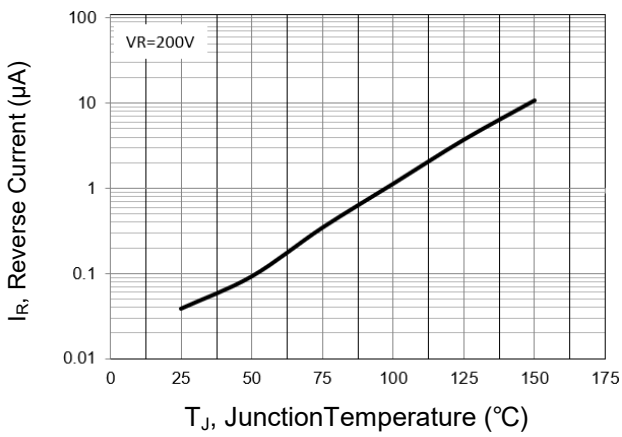
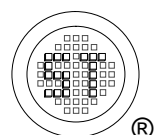
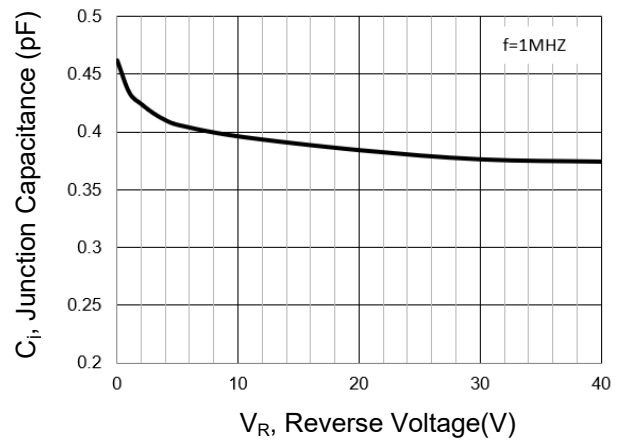


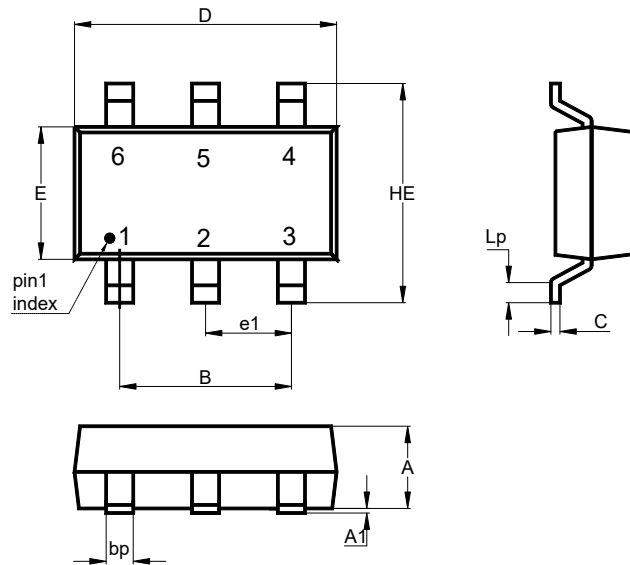
Fig. 4 Junction Capacitance



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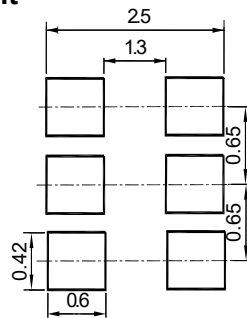
Package Outline (Dimensions in mm)

SOT-363



Unit	A	A1	B	C	D	E	e1	HE	Lp	bp
mm	1.0	0.1	1.3	0.25	2.2	1.35	0.65	2.2	0.4	0.3
	0.9	0	typ.	0.1	1.8	1.15	typ.	2.0	0.15	0.1

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-363	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" SC " = Part No.

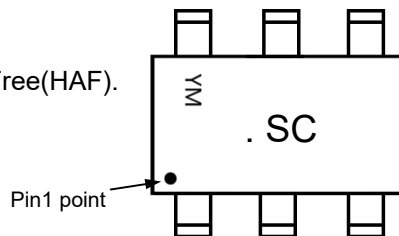
" • " = HAF (Halogen and Antimony Free(HAF)).

"YM" = Date Code Marking

"Y" = Year

"M" = Month

Font type: Arial



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