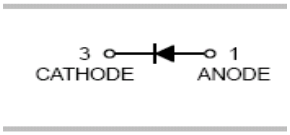
BAT46W-AW-CW-SW

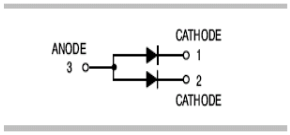
Small Signal Schottky Barrier Diode

Features

- Very small conduction losses
- Negligible switching losses
- Low forward voltage drop



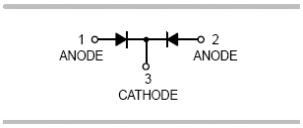
BAT46W



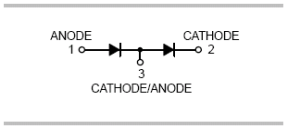
BAT46AW

Applications

- This device is high voltage, small signal schottky diode suited for protection and routing operations



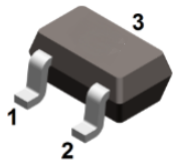
BAT46CW



BAT46SW

Mechanical Data

- Case: SOT-323
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



SOT-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAT46W	SOT-323	3000 pcs / Tape & Reel	S46
BAT46AW	SOT-323	3000 pcs / Tape & Reel	A46
BAT46CW	SOT-323	3000 pcs / Tape & Reel	C46
BAT46SW	SOT-323	3000 pcs / Tape & Reel	B46

Maximum Ratings (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	150	mA
Repetitive Peak Forward Current	I_{FRM}	350	mA
Peak Forward Surge Current (10ms single half sine-wave)	I_{FSM}	0.75	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	200	mW
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	T_J	-55 ~ +125	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Electrical Characteristics (@ T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R= 100μA	100	-	-	V
Forward Voltage	V_F	I_F = 0.1mA	-	-	0.25	V
		I_F = 10mA	-	-	0.45	V
		I_F = 250mA	-	-	1.00	V
Maximum Peak Reverse Current	I_R	V_R = 1.5V	-	-	0.5	μA
		V_R = 1.5V, T_J = 60°C	-	-	5	μA
		V_R = 10V	-	-	0.8	μA
		V_R = 10V, T_J = 60°C	-	-	7.5	μA
		V_R = 50V	-	-	2	μA
		V_R = 50V, T_J = 60°C	-	-	15	μA
		V_R = 75V	-	-	5	μA
		V_R = 75V, T_J = 60°C	-	-	20	μA
Capacitance Between Terminals	C_J	V_R = 0V, f = 1MHz	-	10	-	pF
		V_R = 1V, f = 1MHz	-	6	-	pF

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

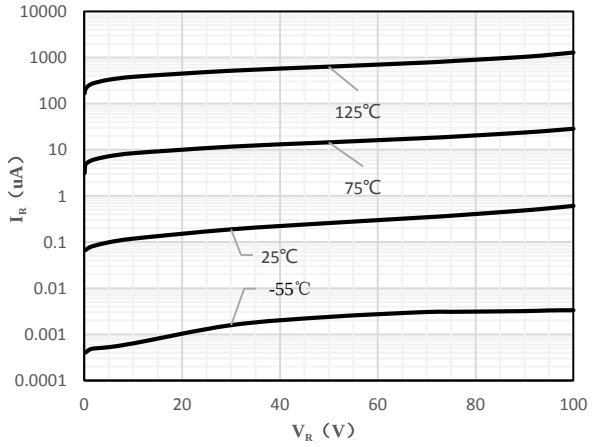


Fig 1 Typical Reverse Characteristic

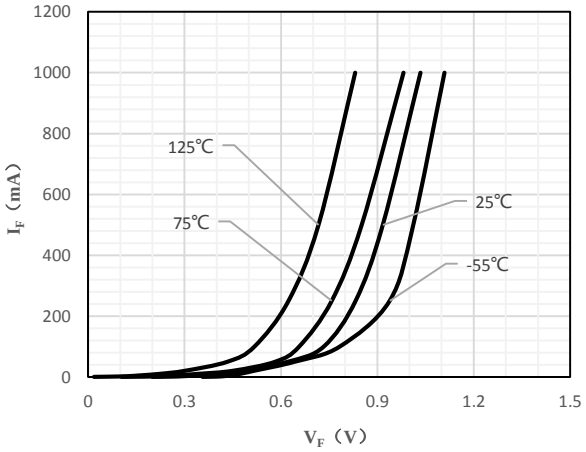


Fig 2 Typical Forward Characteristics

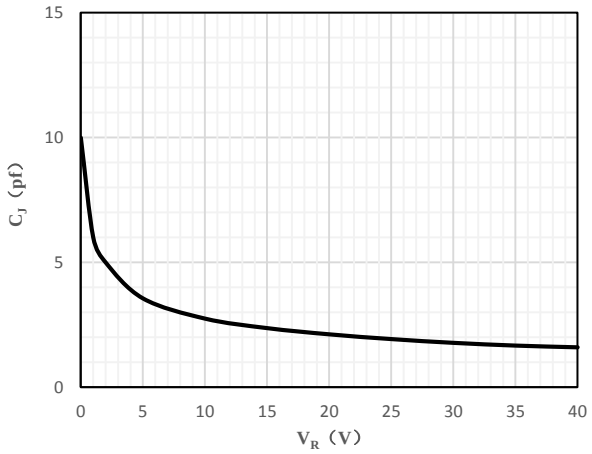


Fig 3 Capacitance Characteristics

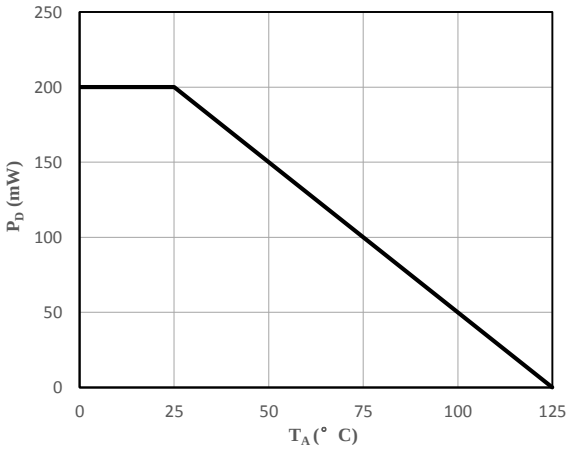
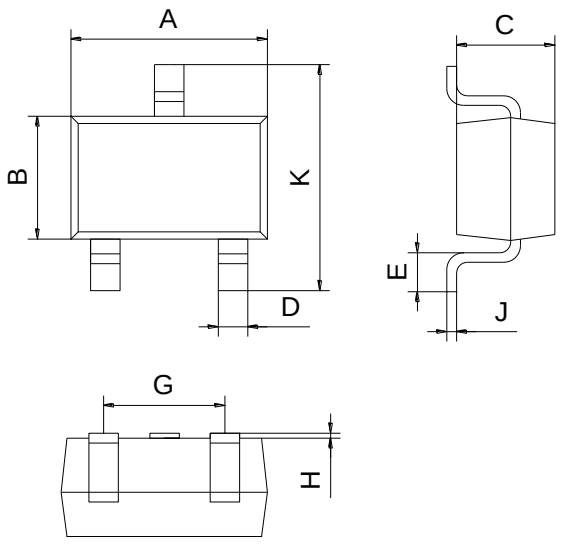


Fig 4 Power Derating Curve

BAT46W-AW-CW-SW

Small Signal Schottky Barrier Diode

Package Outline Dimensions (Unit: mm)



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Dimension	**Min.**	**Max.**
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	0.25	0.40
G	1.20	1.40
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout (Unit: mm)

SOT-323