

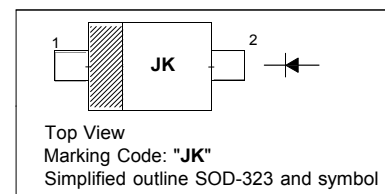
BAT46WH SIGNAL SCHOTTKY BARRIER DIODE

Features

- Low Forward Voltage drop
- Surface mount device
- Reverse voltage $V_R \leq 100$ V
- Low capacitance

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_a = 25$ °C)

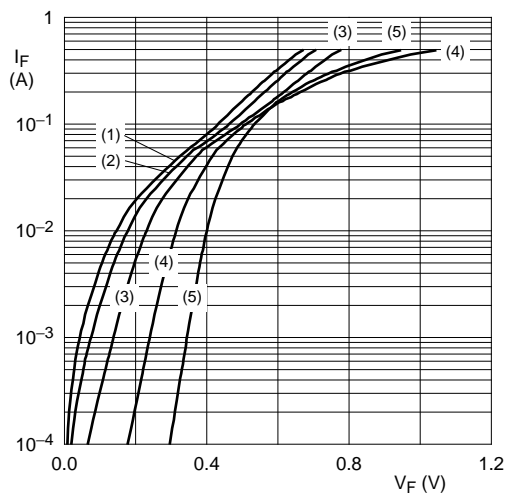
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	250	mA
Power Dissipation	P_{tot}	400	mW
Thermal Resistance Junction Ambient	R_{thJA}	312	°C/W
Operating Junction Temperature Range	T_J	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics at $T_a = 25$ °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100$ μ A	V_{BR}	100	-	-	V
Forward Voltage at $I_F = 0.1$ mA at $I_F = 10$ mA at $I_F = 250$ mA	V_F	-	-	0.20 0.35 0.85	V
Reverse Current at $V_R = 1.5$ V at $V_R = 10$ V at $V_R = 50$ V at $V_R = 75$ V at $V_R = 1.5$ V, $T_j = 60$ °C at $V_R = 10$ V, $T_j = 60$ °C at $V_R = 50$ V, $T_j = 60$ °C at $V_R = 75$ V, $T_j = 60$ °C	I_R	-	-	0.5 0.8 2 4 12 20 44 80	μ A
Total Capacitance at $V_R = 0$ V, $f = 1$ MHz at $V_R = 1$ V, $f = 1$ MHz	C_T	-	-	39 21	pF

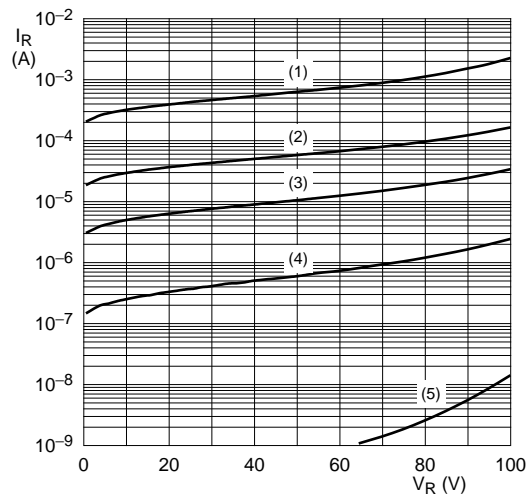
- Note:
1. Part mounted on FR-4 board with recommended pad layout, which can be found on ourwebsite
 2. Short duration test pulse used to minimize self-heating effect

Typical Characteristics



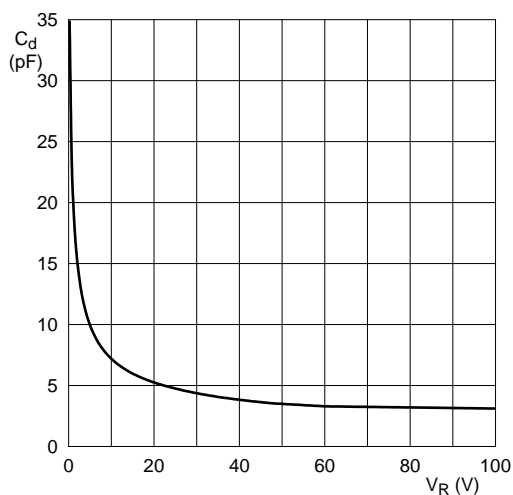
- (1) $T_{amb} = 150\text{ }^{\circ}\text{C}$
- (2) $T_{amb} = 125\text{ }^{\circ}\text{C}$
- (3) $T_{amb} = 85\text{ }^{\circ}\text{C}$
- (4) $T_{amb} = 25\text{ }^{\circ}\text{C}$
- (5) $T_{amb} = -40\text{ }^{\circ}\text{C}$

Fig 1. Forward current as a function of forward voltage; typical values



- (1) $T_{amb} = 125\text{ }^{\circ}\text{C}$
- (2) $T_{amb} = 85\text{ }^{\circ}\text{C}$
- (3) $T_{amb} = 60\text{ }^{\circ}\text{C}$
- (4) $T_{amb} = 25\text{ }^{\circ}\text{C}$
- (5) $T_{amb} = -40\text{ }^{\circ}\text{C}$

Fig 2. Reverse current as a function of reverse voltage; typical values



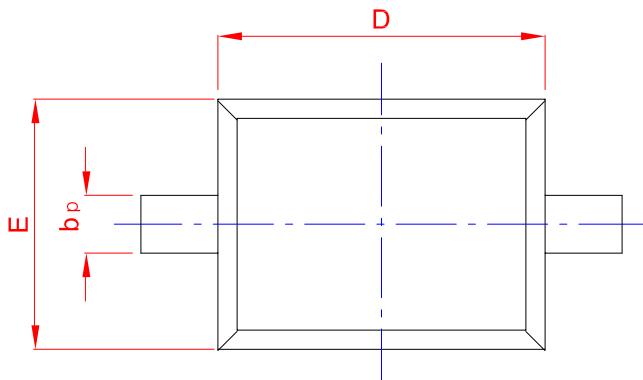
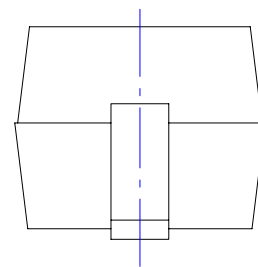
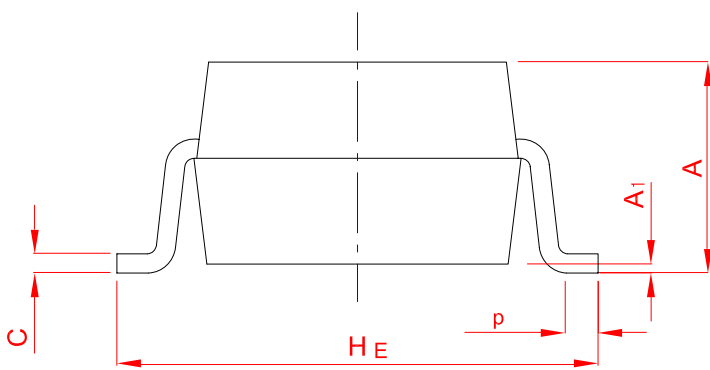
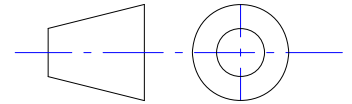
$f = 1\text{ MHz}$; $T_{amb} = 25\text{ }^{\circ}\text{C}$

Fig 3. Diode capacitance as a function of reverse voltage; typical values

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50
	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20