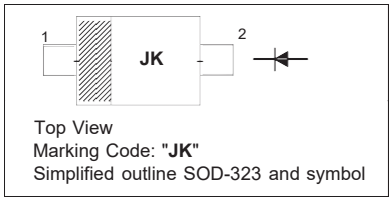
BAT46WH SIGNAL SCHOTTKY BARRIER DIODE

Features

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: "**JK**"
Simplified outline SOD-323 and symbol

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

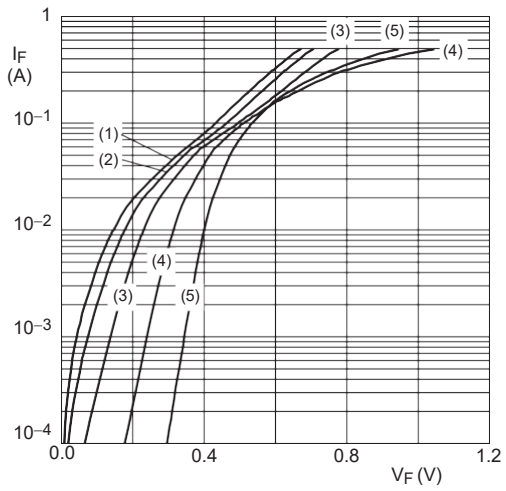
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 μA	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	μA
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

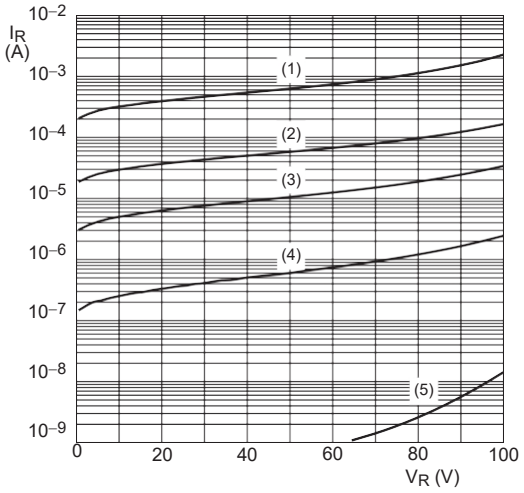
2. Short duration test pulse used to minimize self-heating effec

Typical Characteristics



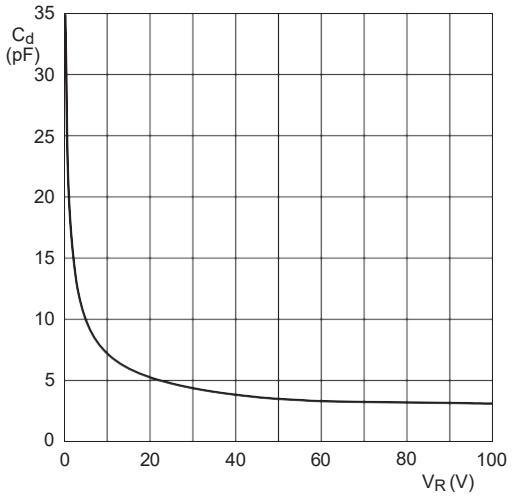
(1) T_{amb} = 150 °C
(2) T_{amb} = 125 °C
(3) T_{amb} = 85 °C
(4) T_{amb} = 25 °C
(5) T_{amb} = –40 °C

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



(1) T_{amb} = 125 °C
(2) T_{amb} = 85 °C
(3) T_{amb} = 60 °C
(4) T_{amb} = 25 °C
(5) T_{amb} = –40 °C

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

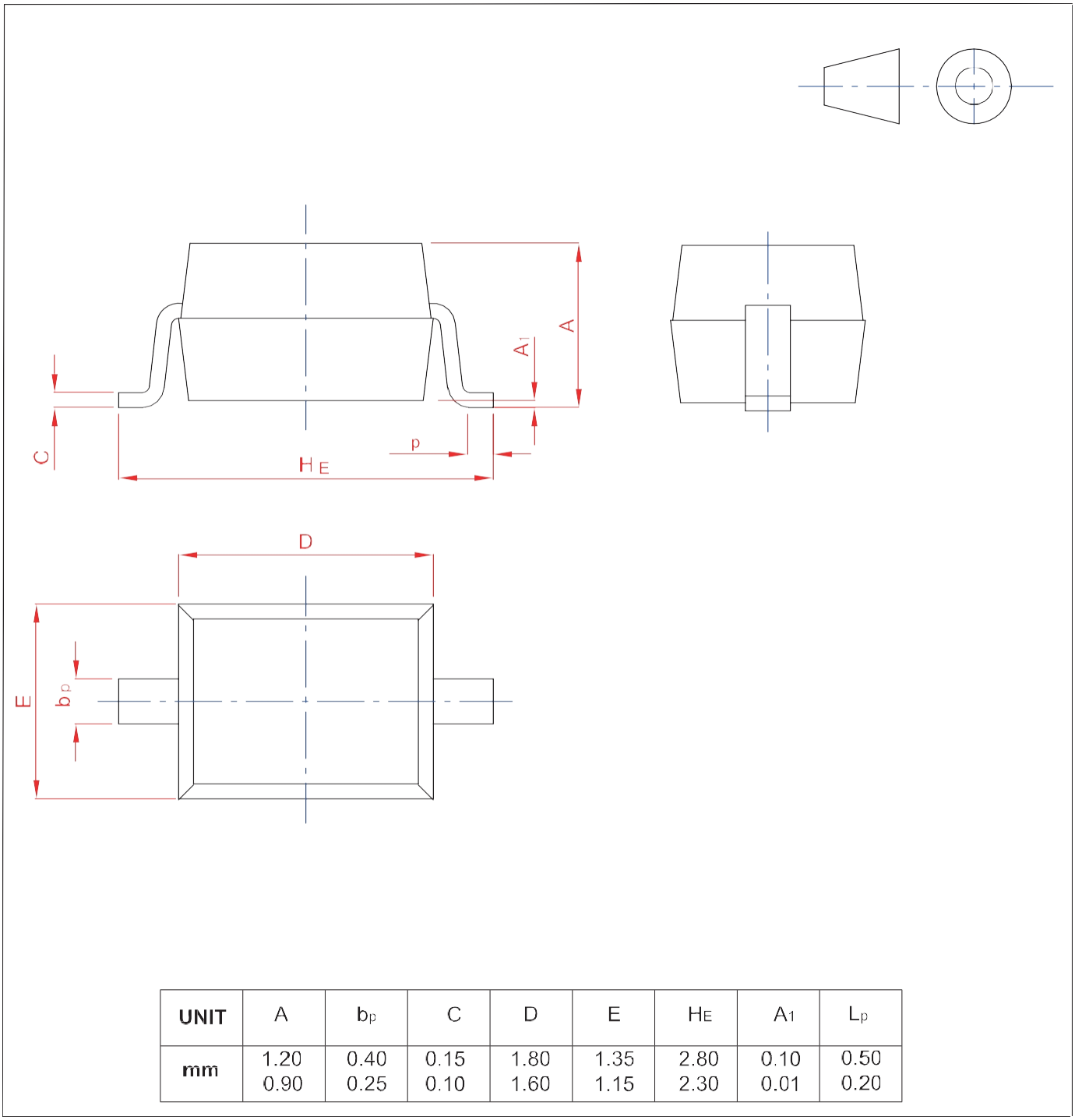


f = 1 M H z ; T_{amb} = 2 5 °C

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 0.90	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30	0.10 0.01	0.50 0.20