

## Schottky Barrier Diode

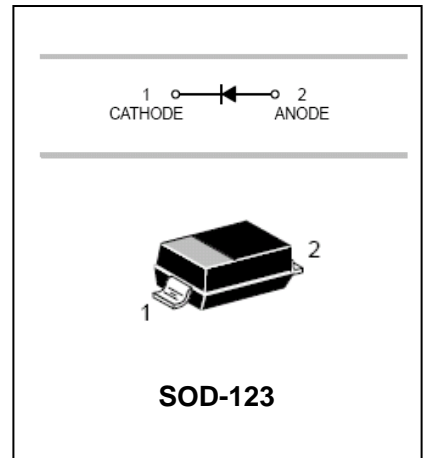
## BAT46W

### FEATURES

- For general purpose applications.
- This diodes features very low turn-on Voltage and fast switching.
- This device is protected by a PN junction guard Ring against excessive voltage, such as electrostatic discharges.



Lead-free



### ORDERING INFORMATION

Type No.	Marking	Package Code
BAT46W	L6	SOD-123

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Repetitive Peak reverse voltage	$V_{RRM}$	100	V
Forward continuous Current	$I_F$	150	mA
Repetitive peak Forward Current	$I_{FRM}$	350	mA
Forward Surge Current	$I_{FSM}$	750	mA
Power Dissipation	$P_d$	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	300	°C/W
Junction temperature	$T_j$	125	°C
Storage temperature range	$T_{stg}$	-55 to +125	°C

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### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu A$	100			V
Forward voltage	$V_F$	$I_F=0.1mA$			0.25	V
	$V_F$	$I_F=10mA$			0.45	V
	$V_F$	$I_F=250mA$			1.00	V
Reverse current	$I_R$	$V_R=1.5V$			0.5	$\mu A$
		$V_R=1.5V, T_j=60^\circ C$			5.0	$\mu A$
		$V_R=10V$			0.8	$\mu A$
		$V_R=10V, T_j=60^\circ C$			7.5	$\mu A$
		$V_R=50V$			2.0	$\mu A$
		$V_R=50V, T_j=60^\circ C$			15	$\mu A$
		$V_R=75V$			5.0	$\mu A$
		$V_R=75V, T_j=60^\circ C$			20	$\mu A$
Capacitance	$C_{tot}$	$V_R=0V, f=1MHz$			10	pF
		$V_R=1V, f=1MHz$			6	

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## TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Fig. 1: Forward current versus forward voltage at different temperatures (typical values).

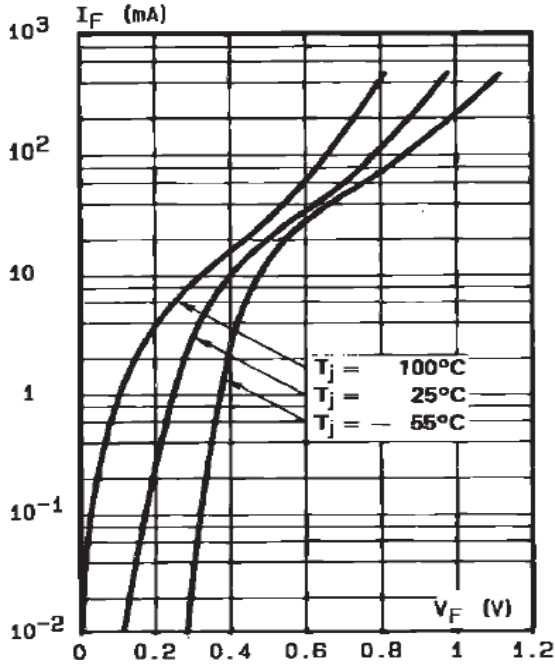


Fig. 2: Forward current versus forward voltage (typical values).

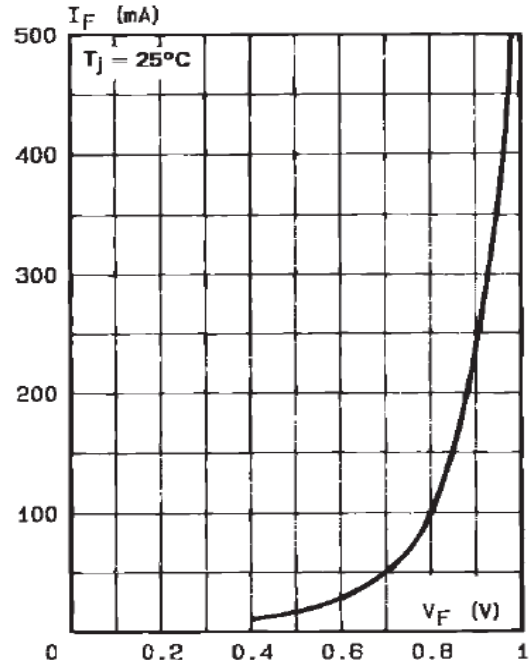


Fig. 3: Reverse current versus junction temperature (typical values).

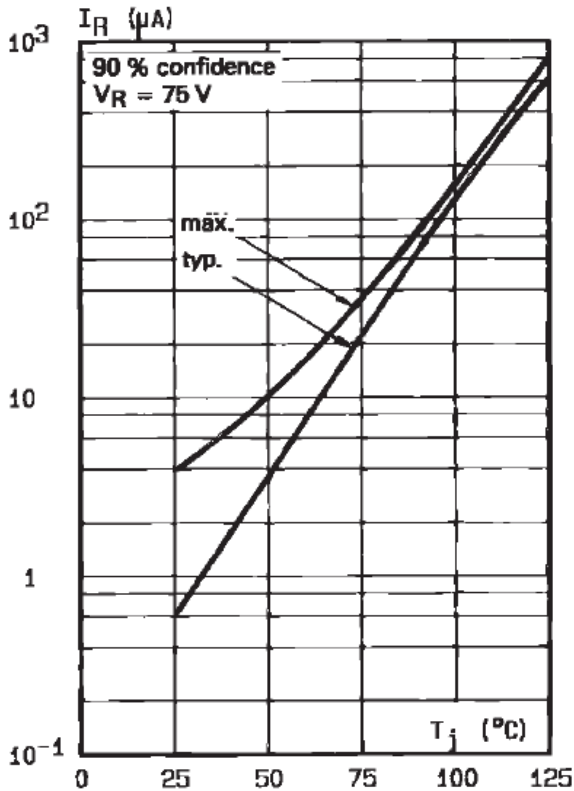
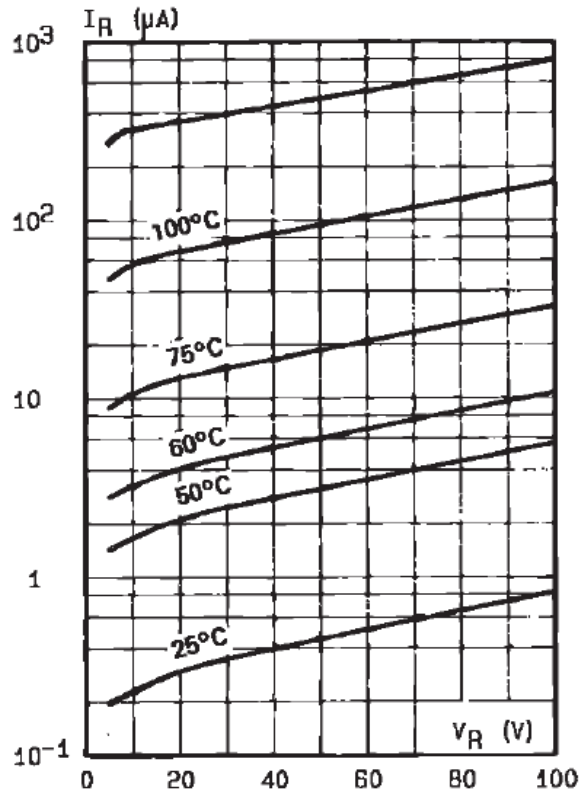


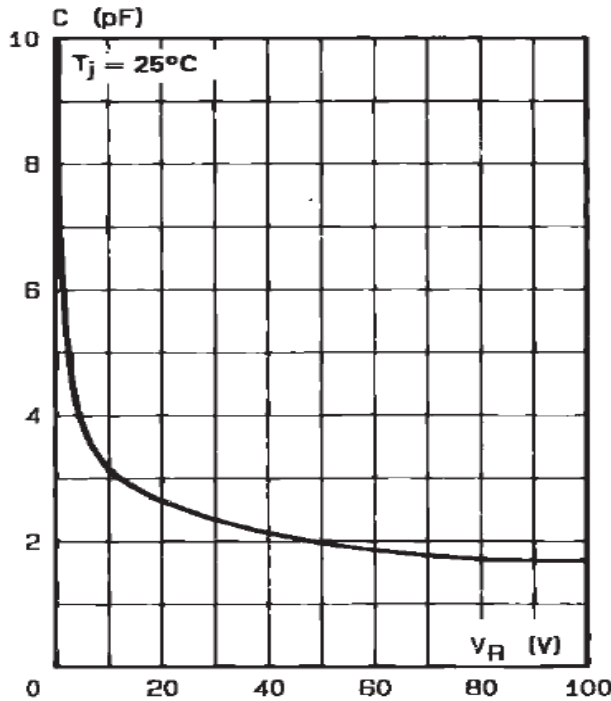
Fig. 4: Reverse current versus continuous reverse voltage (typical values).



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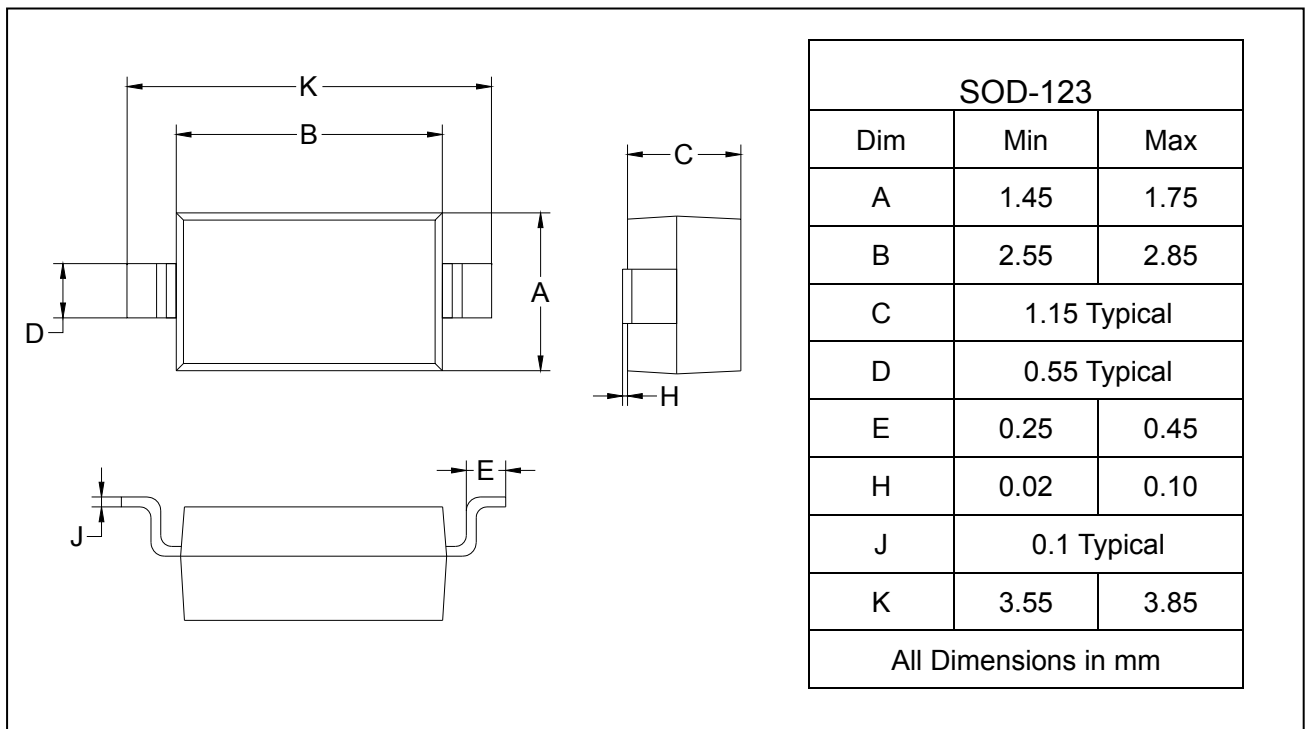
**Fig. 5:** Capacitance  $C$  versus reverse applied voltage  $V_R$  (typical values).



## PACKAGE OUTLINE

Plastic surface mounted package

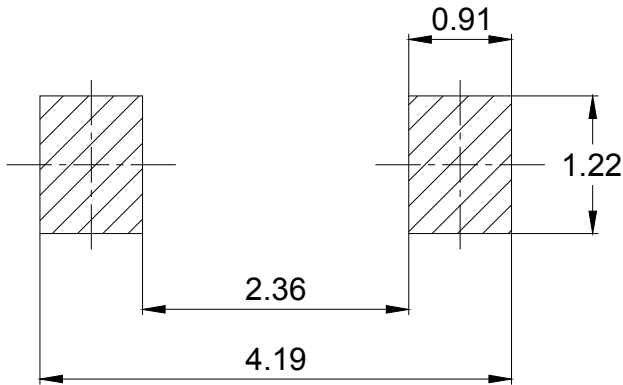
SOD-123



Schottky Barrier Diode

**BAT46W**

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
BAT46W	SOD-123	3000/Tape&Reel