

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 electeostatic discharges.



Lead-free

1 CATHODE 2 ANODE



SOD-123

ORDERING INFORMATION

Type No.	Marking	Package Code
BAT46W	L6	SOD-123

MAXIMUM RATING @ Ta=25℃ 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	℃/W
Junction temperature	T_j	125	℃
Storage temperature range	T_{stg}	-55 to +125	℃

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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	μA
		$V_R=1.5V, T_j=60^\circ C$			5.0	μA
		$V_R=10V$			0.8	μA
		$V_R=10V, T_j=60^\circ C$			7.5	μA
		$V_R=50V$			2.0	μA
		$V_R=50V, T_j=60^\circ C$			15	μA
		$V_R=75V$			5.0	μA
		$V_R=75V, T_j=60^\circ C$			20	μA
Capacitance	C_{tot}	$V_R=0V, f=1MHz$ $V_R=1V, f=1MHz$			10 6	pF

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

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

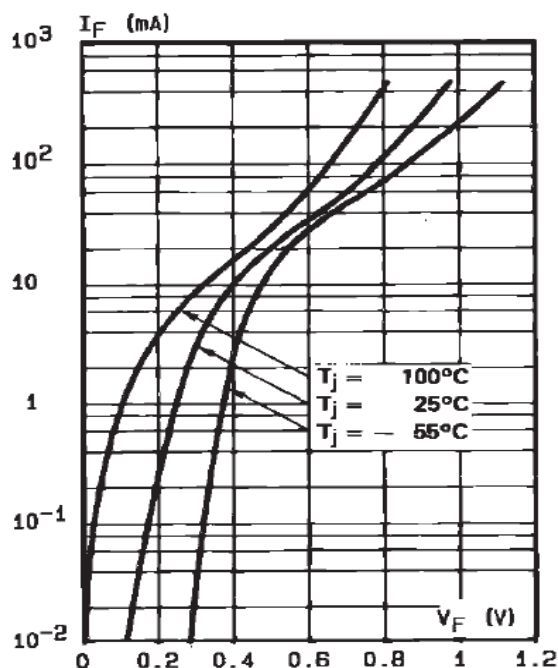


Fig. 2: Forward current versus forward voltage (typical values).

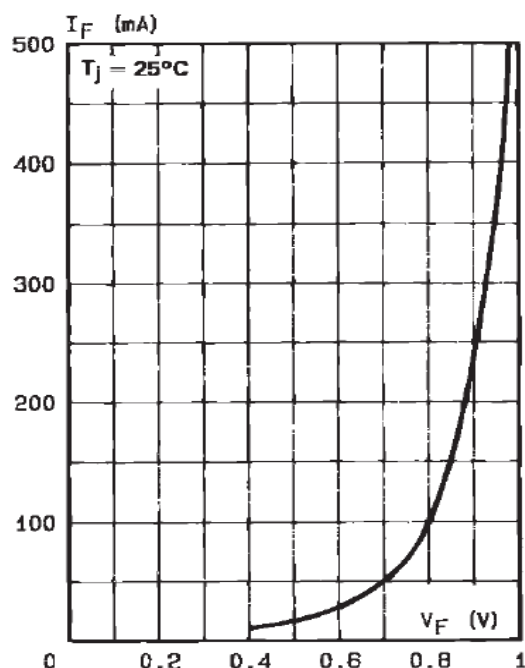


Fig. 3: Reverse current versus junction temperature (typical values).

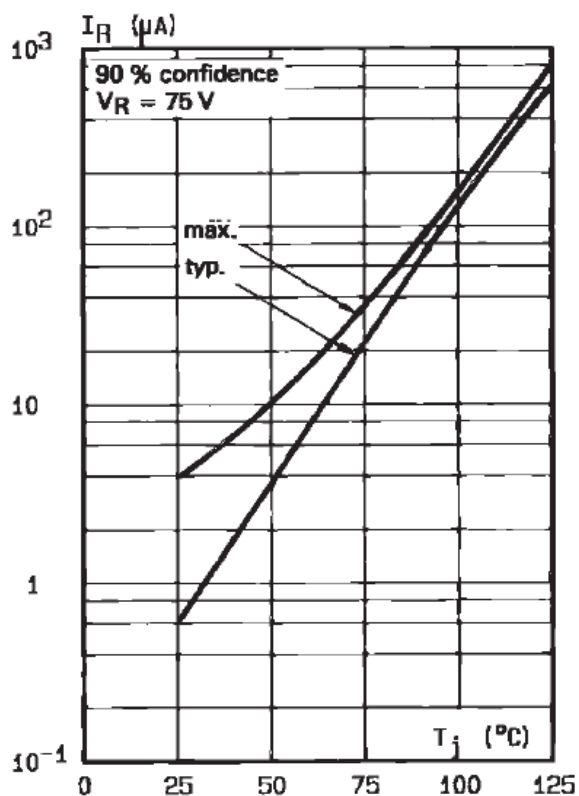
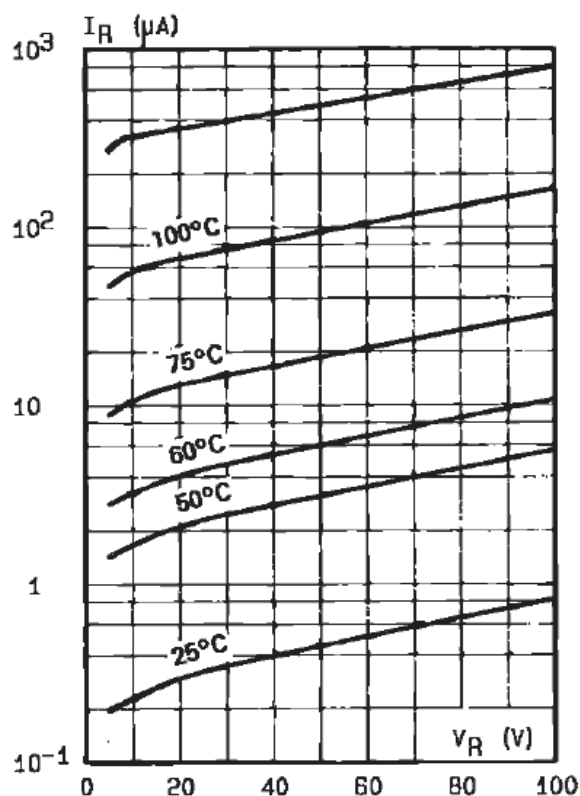


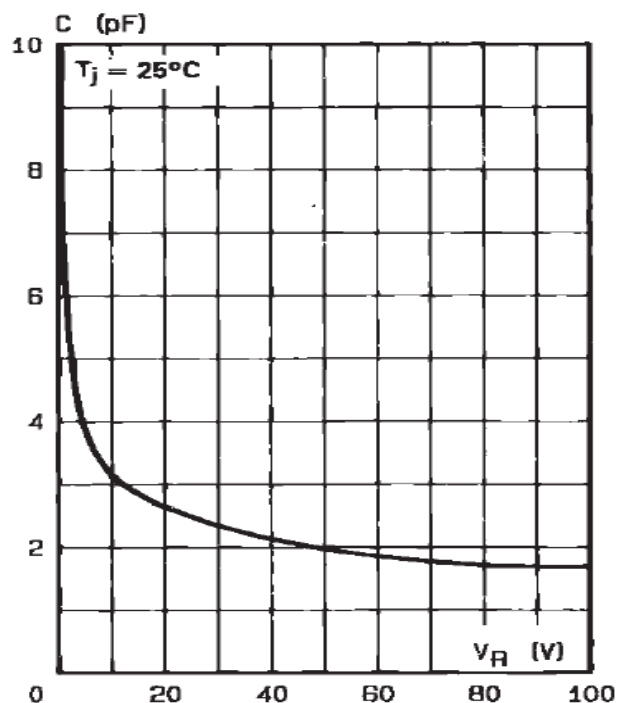
Fig. 4: Reverse current versus continuous reverse voltage (typical values).



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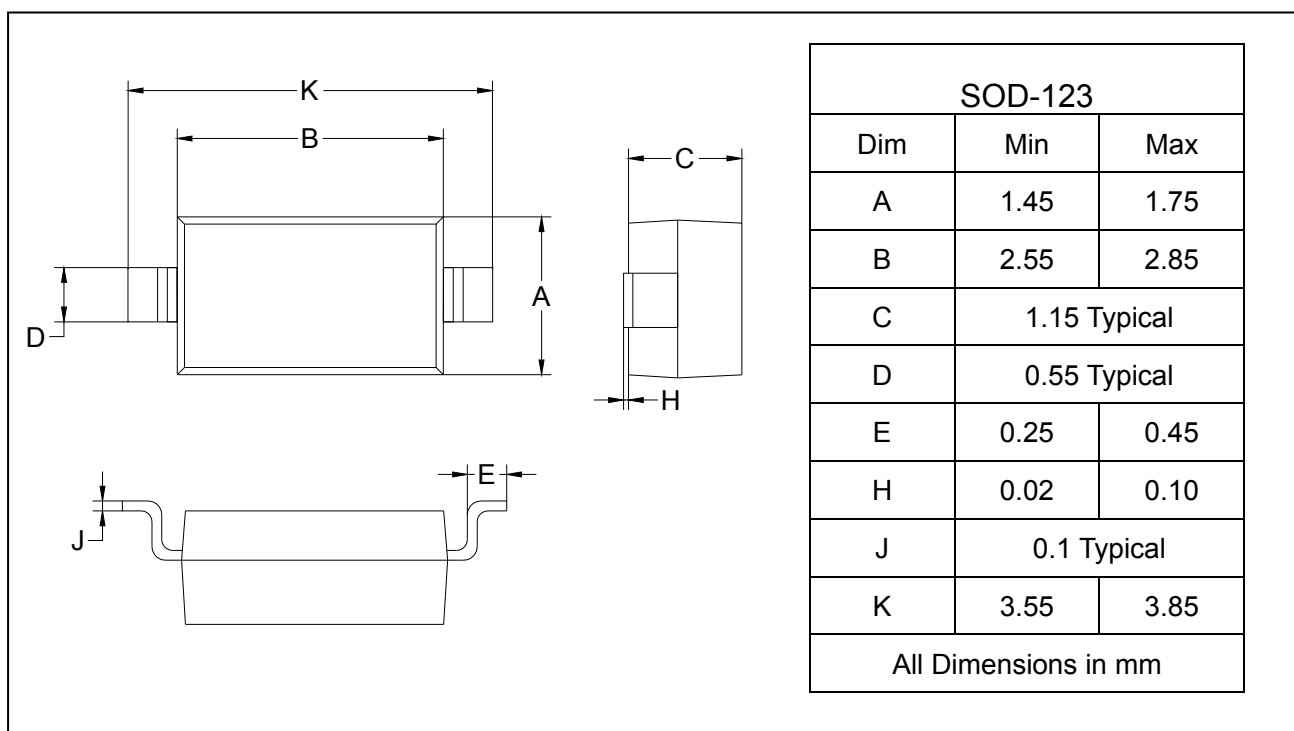
Fig. 5: Capacitance C versus reverse applied voltage V_R (typical values).



PACKAGE OUTLINE

Plastic surface mounted package

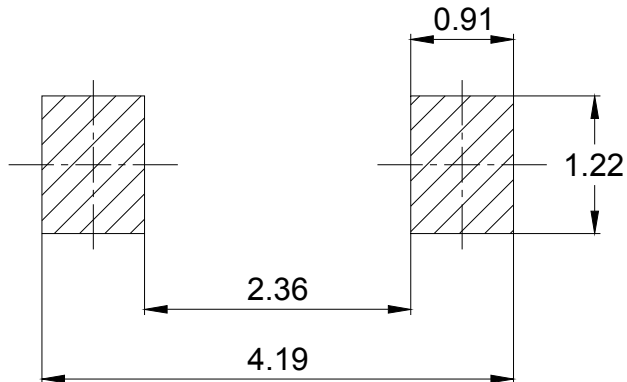
SOD-123



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SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

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