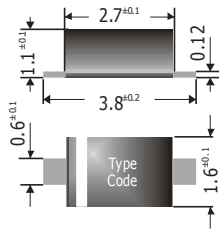
BAT46W

Surface Mount Schottky Barrier Diodes
Schottky-Barrier-Dioden für die Oberflächenmontage

Version 2012-07-31



Dimensions - Maße [mm]

Power dissipation – Verlustleistung	200 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	100 V
Plastic case – Kunststoffgehäuse	SOD-123
Weight approx. – Gewicht ca.	0.01 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle	

Maximum ratings (T_A = 25°C) **Grenzwerte (T_A = 25°C)**

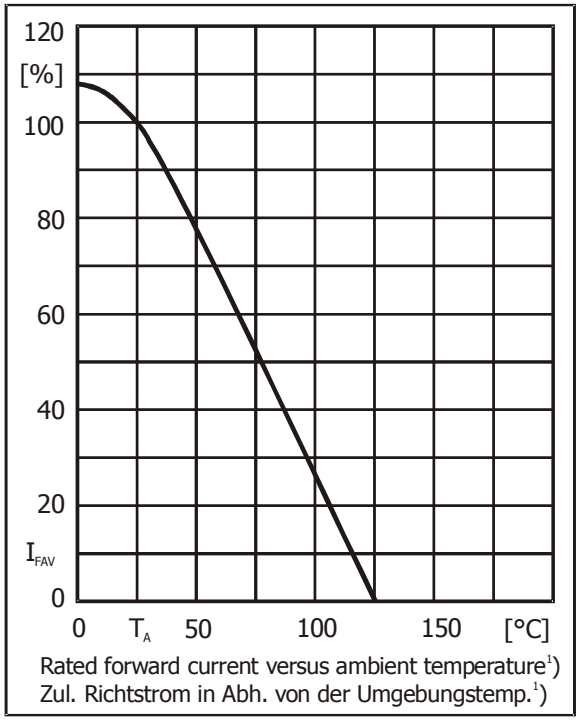
		BAT46W
Power dissipation – Verlustleistung	P_{tot}	200 mW [1])
Max. average forward current – Dauergrenzstrom (dc)	I_{FAV}	150 mA [1])
Repetitive peak forward current – Periodischer Spitzenstrom	I_{FRM}	350 mA [1])
Non repetitive peak forward surge current $t_p \le 10$ ms Stoßstrom-Grenzwert	I_{FSM}	750 mA
Repetitive peak reverse voltage – Periodische Spitzensperrspannung	V_{RRM}	100 V
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur	T_j T_S	-55...+125°C -55...+150°C

Characteristics (T_j = 25°C) **Kennwerte (T_j = 25°C)**

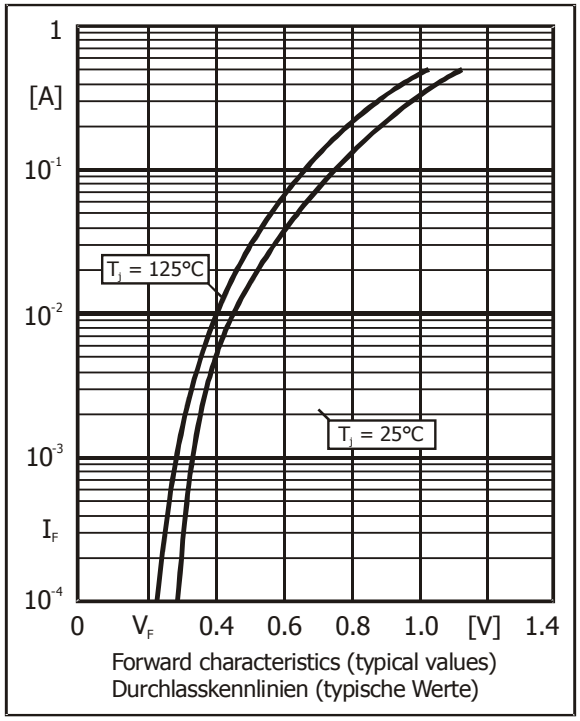
Forward voltage Durchlass-Spannung		I_F = 0.1 mA I_F = 10 mA I_F = 250 mA	V_F V_F V_F	< 0.25 V < 0.45 V < 1 V
Leakage current – Sperrstrom [2])		V_R = 1.5 V V_R = 10 V V_R = 50 V V_R = 75 V	I_R I_R I_R I_R	< 0.5 µA < 0.8 µA < 2 µA < 5 µA
Leakage current – Sperrstrom [2])	T_j = 60°C	V_R = 1.5 V V_R = 10 V V_R = 50 V V_R = 75 V	I_R I_R I_R I_R	< 5 µA < 7.5 µA < 15 µA < 20 µA
Total capacitance Gesamtkapazität	f = 1 Mhz	V_R = 0 V V_R = 1 V	C_T C_T	typ. 20 pF typ. 12 pF
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft			R_{thA}	< 420 K/W [1])

1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss
2 Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%

Marking – Stempelung	BAT46W = XH



Rated forward current versus ambient temperature[1])
Zul. Richtstrom in Abh. von der Umgebungstemp.[1])



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)

 © Diotec Semiconductor AG