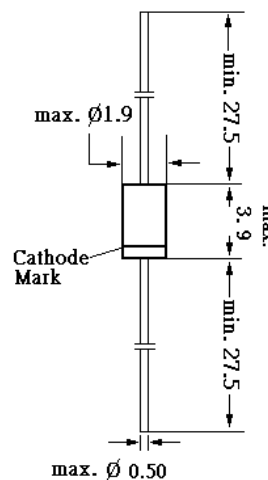


SCHOTTKY DIODE

Features

- For general purpose applications
- This diode 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
- This diode is also available in the SOD-123 case with the type designation BAT46W and in the MiniMELF case with type designations LL46.



Glass case JEDEC DO-35
Dimensions in mm

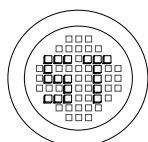
Mechanical Data

- Case: DO-35 Glass Case

Absolute Maximum Ratings (T_a = 25°C)

Parameter	Symbol	Limits	Unit
Repetitive peak reverse voltage	V _{RRM}	100	V
Forward continuous current at T _{amb} = 25°	I _F	150 ⁽¹⁾	mA
Repetitive peak forward current at tp < 1s, δ < 0.5, T _{amb} = 25°	I _{FRM}	350 ⁽¹⁾	mA
Surge forward current at tp < 10ms, T _{amb} = 25°	I _{FSM}	750 ⁽¹⁾	mA
Power dissipation ⁽¹⁾ at T _{amb} = 65°	P _{tot}	150 ⁽¹⁾	mW
Operating ambient temperature	T _{amb}	-65 to +125	°C
Junction temperature	T _j	125	°C
Storage temperature range	T _s	-65 to +150	°C
Thermal resistance from junction to ambient air	R _{θJA}	0.3 ⁽¹⁾	°C/mW

Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.



®

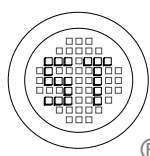
РАДИОТЕХ

Тел.: (495) 795-0805
Факс: (495) 234-1603
Эл. почта: info@rct.ru
Веб: www.rct.ru

BAT46

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Forward voltage pulse test $t_p < 300\mu\text{s}$, $\delta < 2\%$ at $I_F = 0.1\text{mA}$	V_F	-	-	0.25	V
at $I_F = 10\text{mA}$	V_F	-	-	0.45	V
at $I_F = 250\text{mA}$	V_F	-	-	1	V
Leakage current pulse test $t_p < 300\mu\text{s}$, $\delta < 2\%$ at $V_R = 1.5\text{V}$	I_R	-	-	0.5	μA
at $V_R = 1.5\text{V}$, $T_j = 60^\circ\text{C}$	I_R	-	-	5	μA
at $V_R = 10\text{V}$	I_R	-	-	0.8	μA
at $V_R = 10\text{V}$, $T_j = 60^\circ\text{C}$	I_R	-	-	7.5	μA
at $V_R = 50\text{V}$	I_R	-	-	2	μA
at $V_R = 50\text{V}$, $T_j = 60^\circ\text{C}$	I_R	-	-	15	μA
at $V_R = 75\text{V}$	I_R	-	-	5	μA
at $V_R = 75\text{V}$, $T_j = 60^\circ\text{C}$	I_R	-	-	20	μA
Reverse breakdown voltage at $I_R = 100\mu\text{A}$ (pulsed)	$V_{(BR)R}$	100	-	-	V
Diode capacitance at $V_R = 0\text{V}$, $f = 1\text{MHz}$	C_{tot}	-	10	-	pF
at $V_R = 1\text{V}$, $f = 1\text{MHz}$		-	6	-	



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



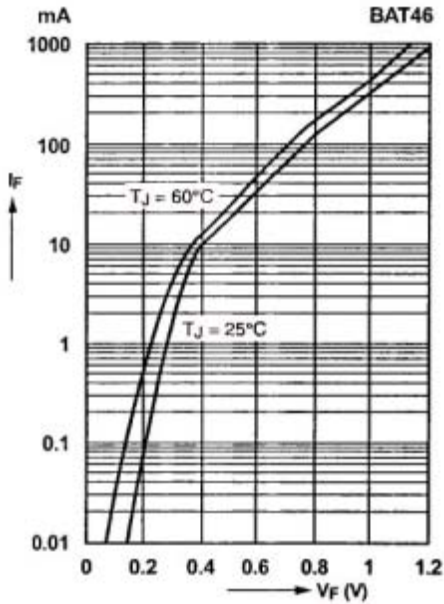
ISO 9001 : 2000
Certificate No. 550-1559-04-002-04

Dated : 14/09/2004

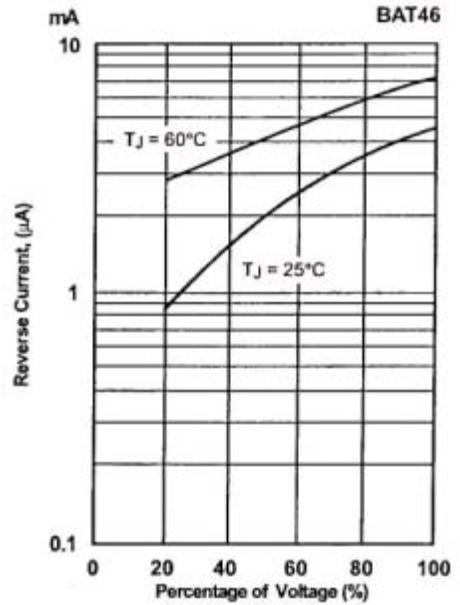
BAT46

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

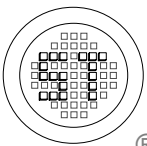
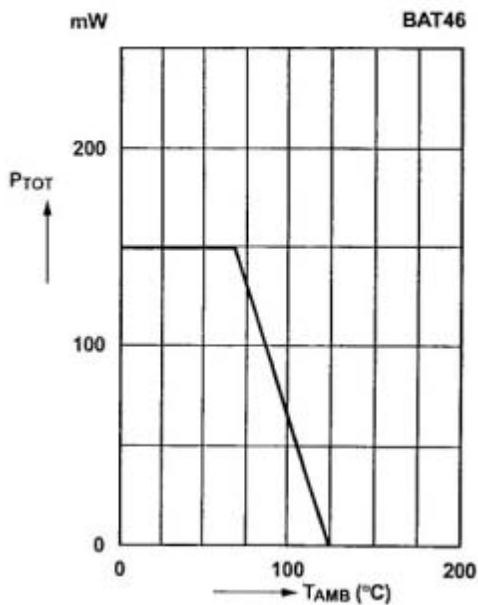
Forward Characteristics



Typical Reverse Characteristics



Admissible Power Dissipation vs. Ambient Temperature



SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 550-1559-04-002-04

Dated : 14/09/2004