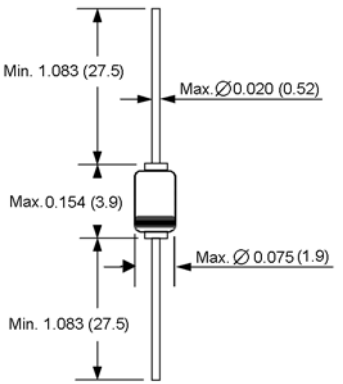
BAT46

Small-Signal Diode
Schottky Diode

Features

- For general purpose applications.
- These diodes feature very low turn-on voltage and fast switching. These devices are protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges
- This diode is also available in the MiniMELF case with type designation LL46.

DO-204AH (DO-35 Glass)



Dimensions in inches and (millimeters)

Mechanical Data

- Case: DO-35 Glass Case
- Weight: approx. 0.13g

Maximum Ratings and Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	100	Volts
Forward continuous current at T_{amb}=25°C	I_F	150 (1)	mA
Repetitive peak forward current at t_p<1s, δ<0.5, T_{amb}=25°C	I_{FRM}	350 (1)	mA
Surge forward current at t_p<10ms, T_{amb}=25°C	I_{FSM}	750 (1)	mA
Power dissipation (1) at T_{amb}=65°C	P_{tot}	150 (1)	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	0.3 (1)	°C/mW
Junction temperature	T_j	125	°C
Ambient operating temperature range	T_{amb}	-65 to +125	°C
Storage temperature range	T_S	-65 to +150	°C

Electrical Characteristics

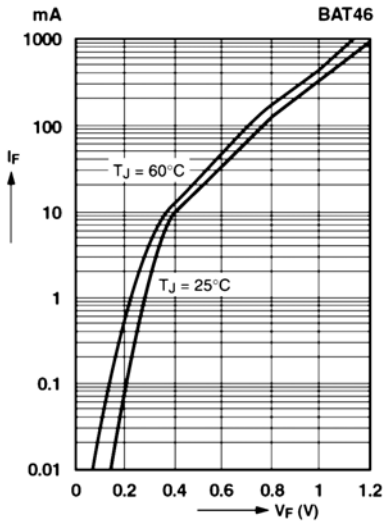
(T_j=25°C unless otherwise noted.)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)R}$	I_R=100uA (pulsed)	100	-	-	Volts
Leakage current pulse test t_p<300us, δ<2%	I_R	V_R=1.5V V_R=1.5V, T_j=60°C V_R=10V V_R=10V, T_j=60°C V_R=50V V_R=50V, T_j=60°C V_R=75V V_R=75V, T_j=60°C	- - - - - - - -	- - - - - - - -	0.5 5 0.8 7.5 2 15 5 20	uA
Forward voltage pulse test t_p<300us, δ<2%	V_F	I_F=0.1mA I_F=10mA I_F=250mA	- - -	- - -	0.25 0.45 1.0	Volt
Capacitance	C_{tot}	V_R=0V, f=1MHz V_R=1V, f=1MHz	- -	10 6	- -	pF

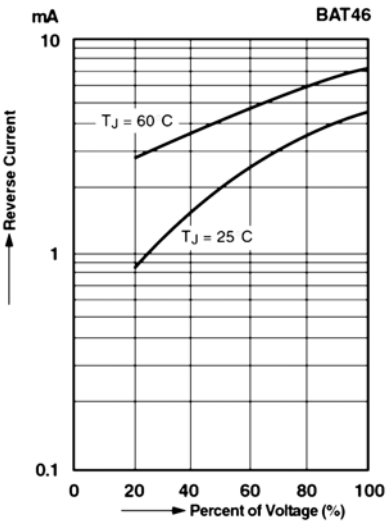
Notes: 1. Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

RATINGS AND CHARACTERISTIC CURVES

Forward Characteristics



Typical Reverse Characteristics



Admissible Power Dissipation vs. Ambient Temperature