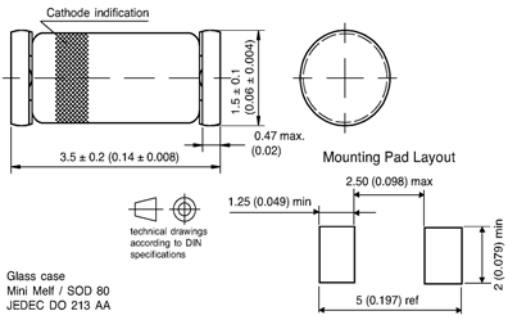
LL46

Small-Signal Diode
Schottky Diode

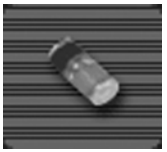
Features

- For general purpose applications.
- This diode features low turn-on voltage and high break-down voltage. This device is protected by a PN junction guardring against excessive voltage, such as electrostatic discharges.
- This diode is also available in the DO-35 case with type designation BAT46.



Mechanical Data

- Case: MiniMELF Glass Case (SOD-80)
- Weight: approx. 0.05g
- Cathode Band Color: Green



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 at T_{amb}=80°C	P_{tot}	200 (1)	mW
Thermal resistance junction to ambient air	R_{thJA}	0.3 (1)	°C/mW
Junction temperature	T_j	125	°C
Ambient operating temperature range	T_{amb}	-55 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	$V_{(BR)R}$	100uA (pulsed)	100	-	-	Volts
Leakage current pulse test t_p<300us, δ<2%	I_R	V_R=1.5V	-	-	0.5	uA
		V_R=1.5V, T_j=60°C	-	-	5	
		V_R=10V	-	-	0.8	
		V_R=10V, T_j=60°C	-	-	7.5	
		V_R=50V	-	-	2	
		V_R=50V, T_j=60°C	-	-	15	
		V_R=75V	-	-	5	
		V_R=75V, T_j=60°C	-	-	20	
Forward voltage pulse test t_p<300us, δ<2%	V_F	I_F=0.1mA	-	-	0.25	Volt
		I_F=10mA	-	-	0.45	
		I_F=250mA	-	-	1.0	
Capacitance	C_{tot}	V_R=0V, f=1MHz	-	10	-	pF
		V_R=1V, f=1MHz	-	6	-	

Notes: 1. Valid provided that electrodes are kept at ambient temperature