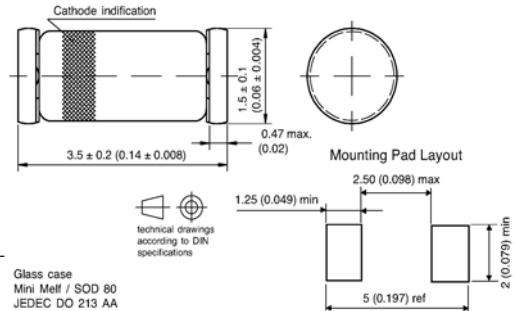


Features

- ◆ 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 $T_{amb}=25^{\circ}\text{C}$	I_F	150 ⁽¹⁾	mA
Repetitive peak forward current at $t_p < 1\text{s}$, $\delta < 0.5$, $T_{amb}=25^{\circ}\text{C}$	I_{FRM}	350 ⁽¹⁾	mA
Surge forward current at $t_p < 10\text{ms}$, $T_{amb}=25^{\circ}\text{C}$	I_{FSM}	750 ⁽¹⁾	mA
Power dissipation at $T_{amb}=80^{\circ}\text{C}$	P_{tot}	200 ⁽¹⁾	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	0.3 ⁽¹⁾	$^{\circ}\text{C}/\text{mW}$
Junction temperature	T_j	125	$^{\circ}\text{C}$
Ambient operating temperature range	T_{amb}	-55 to +125	$^{\circ}\text{C}$
Storage temperature range	T_s	-65 to +150	$^{\circ}\text{C}$



Electrical Characteristics

($T_j=25^{\circ}\text{C}$ unless otherwise noted.)

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

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