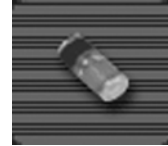


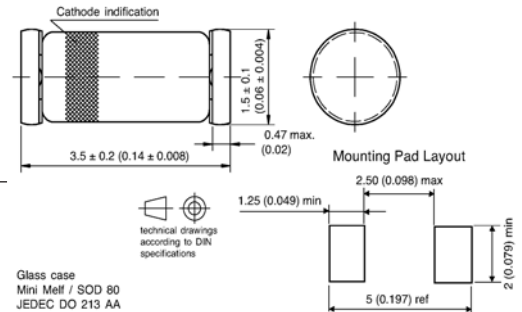
Features

- ◆ For general purpose applications.
- ◆ This diode features low turn-on voltage and high break-down voltage.
- ◆ This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- ◆ This diode is also available in the DO-35 case with type designation BAT48.



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}	40	Volts
Forward continuous current at $T_{amb}=25^{\circ}\text{C}$	I_F	350 ⁽¹⁾	mA
Repetitive peak forward current at $t_p < 1\text{s}$, $\delta < 0.5$, $T_{amb}=25^{\circ}\text{C}$	I_{FRM}	1.0 ⁽¹⁾	Amp
Surge forward current at $t_p < 10\text{ms}$, $T_{amb}=25^{\circ}\text{C}$	I_{FSM}	7.5 ⁽¹⁾	Amps
Power dissipation ⁽¹⁾ at $T_{amb}=80^{\circ}\text{C}$	P_{tot}	330 ⁽¹⁾	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	300 ⁽¹⁾	$^{\circ}\text{C}/\text{W}$
Junction temperature	T_j	125	$^{\circ}\text{C}$
Ambient operating temperature range	T_{amb}	-65 to +125	$^{\circ}\text{C}$
Storage temperature range	T_s	-65 to +150	$^{\circ}\text{C}$

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

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 Pulses	40	-	-	Volts
Leakage current pulse test $t_p < 300\mu\text{s}$, $\delta < 2\%$	I_R	$V_R=10\text{V}$ $V_{R1}=10\text{V}$, $T_j=60^\circ\text{C}$ $V_R=20\text{V}$ $V_{R1}=20\text{V}$, $T_j=60^\circ\text{C}$ $V_R=40\text{V}$ $V_{R1}=40\text{V}$, $T_j=60^\circ\text{C}$	-	-	2 15 5 25 25 50	μA
Forward voltage pulse test $t_p < 300\mu\text{s}$, $\delta < 2\%$	V_F	$I_F=0.1\text{mA}$ $I_F=1.0\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=200\text{mA}$ $I_F=500\text{mA}$	-	-	0.25 0.30 0.40 0.50 0.75 0.90	Volt
Capacitance	C_{tot}	$V_R=1\text{V}$, $f=1\text{MHz}$	-	12	-	pF

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