



# LL41

Small Signal Schottky Diodes

**VOLTAGE : 100 V**

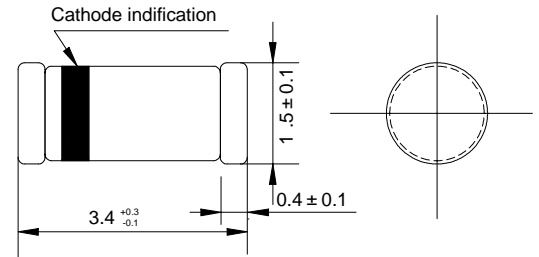
**MINI-MELF**

## 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.

These diodes are also available in the DO-35 case with type designations BAT41 and in the SOD-123 case with type designations BAT41W



Dimensions in millimeters

## Mechanical Data

Case: MINI-MELF, glass case

Polarity: Color band denotes cathode

Weight: 0.031 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

### MAXIMUM RATINGS

		LL41	UNITS
Peak reverse voltage	$V_{RRM}$	100	V
Forward continuous current	$I_F$	100 <sup>1)</sup>	mA
Surge forward current at $t_p=10$ ms	$I_{FSM}$	750 <sup>1)</sup>	A
Power dissipation	$P_{tot}$	400 <sup>1)</sup>	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	300 <sup>1)</sup>	/W
Junction temperature	$T_j$	125	
Storage temperature range	$T_{STG}$	-55 --- + 150	

<sup>1)</sup>Valid provided that electrodes are kept at ambient temperature.

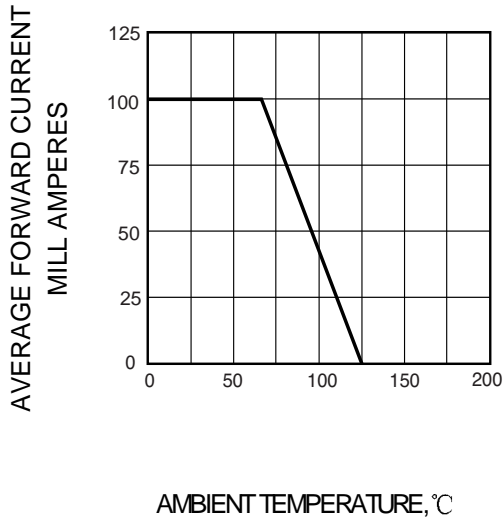
## ELECTRICAL CHARACTERISTICS

		MIN	TYP	MAX	UNITS
Reverse breakdown voltage at $I_R=100\mu A$	$V_{(BR)}$	100	110	-	V
Forward voltage pulse test $t_p=300\mu s, \delta < 2\%$  @ $I_F=1mA$  @ $I_F=200mA$	$V_F$	- -	0.4 -	0.45 1.0	V
Leakage current pulse test $t_p < 300\mu s$ @ $V_R=25V, T_J=25$ @ $V_R=25V, T_J=100$	$I_R$	- -	- -	100 20	nA $\mu A$
Junction capacitance at $V_R=1V$ $f=1MHz$	$C_{tot}$	-	7.0	-	pF
Reverse recovery time	$t_{rr}$	-	-	$5^{2)}$	ns

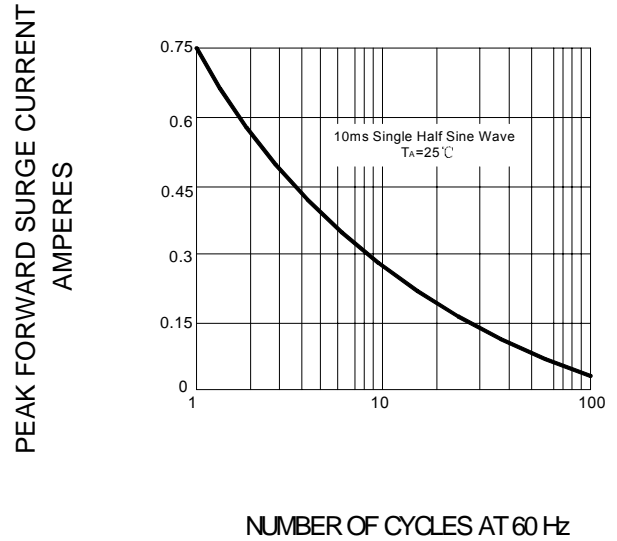
<sup>2)</sup> $I_F=10mA, I_R=10mA, I_{rr}=1mA, R_L=100\Omega$

## Ratings AND Characteristic Curves

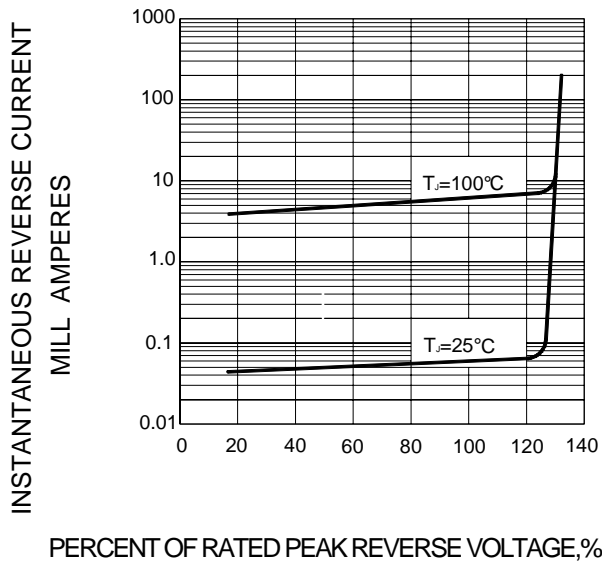
**FIG.1 –FORWARD DERATING CURVE**



**FIG.2 –PEAK FORWARD SURGE CURRENT**



**FIG.3–TYPICAL REVERSE CHARACTERISTICS**



**FIG.4–PEAK JUNCTION CAPACITANCE**

