

## SMALL SIGNAL SCHOTTKY DIODE

**VOLTAGE : 100 V**

### 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

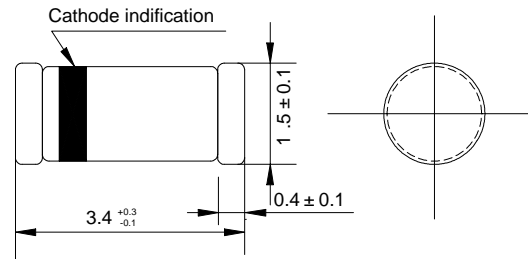
### MECHANICAL DATA

Case: MINI-MELF, glass case

Polarity: Color band denotes cathode

Weight: 0.031 grams

### MINI-MELF



Dimensions in millimeters

## 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.

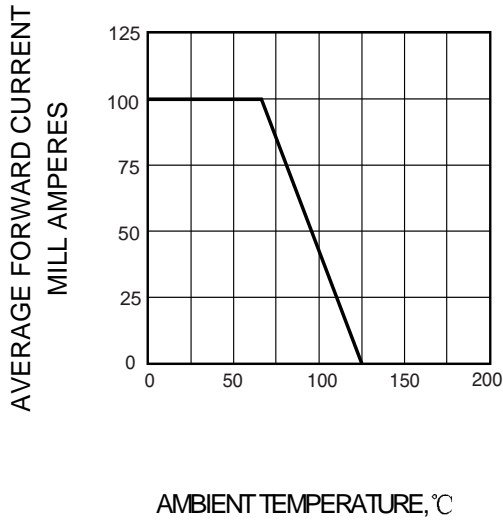
## ELECTRICAL CHARACTERISTICS

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

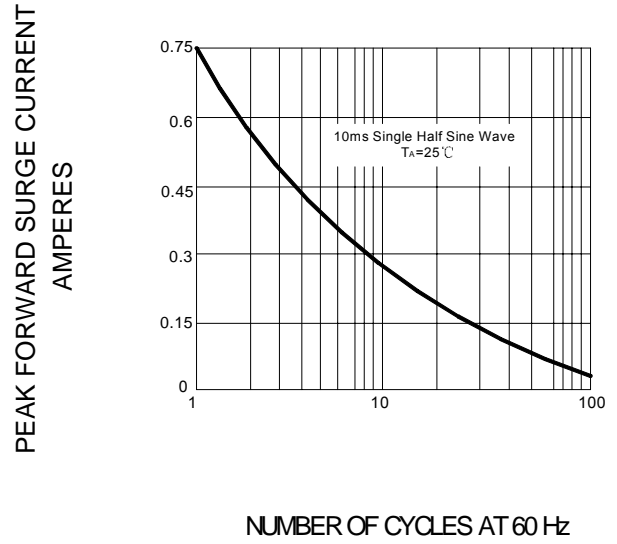
<sup>2)</sup> $I_F=10\text{mA}, I_R=10\text{mA}, I_{rr}=1\text{mA}, R_L=100\Omega$

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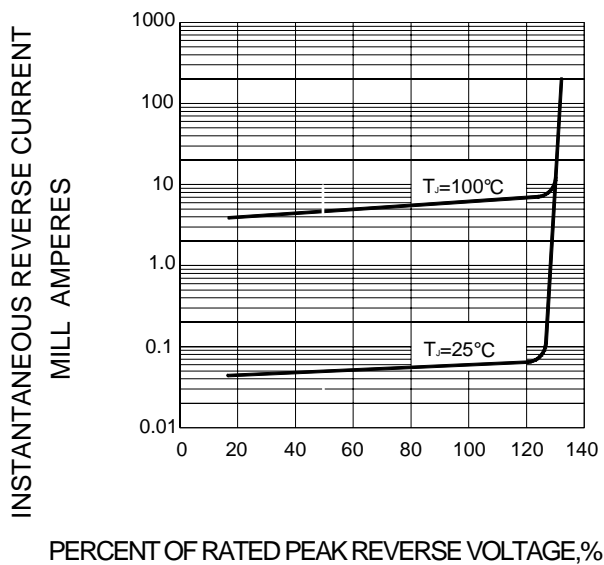
**FIG.1 –FORWARD DERATING CURVE**



**FIG.2 –PEAK FORWARD SURGE CURRENT**



**FIG.3-TYPECAL REVERSE CHARACTERISTICS**



**FIG.4-PEAK JUNCTION CAPACITANCE**

