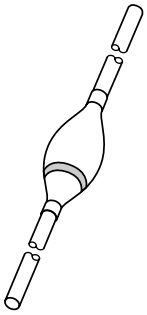
# DATA SHEET



# BYX132GL
## High-voltage car ignition diode

Product specification
Supersedes data of 2000 Jan 13

2001 Oct 02

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# High-voltage car ignition diode BYX132GL

## FEATURES

- Glass passivated
- High maximum operating temperature
- Low leakage current
- Excellent stability
- Guaranteed avalanche energy absorption capability.

## APPLICATIONS

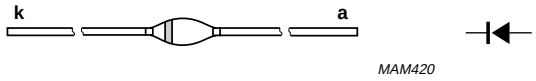
- Car ignition systems
- Automotive applications with extreme temperature requirements.

## DESCRIPTION

Rugged glass package, using a high temperature alloyed construction.

The SOD119AB is hermetically sealed and fatigue free as coefficients of expansion of all used parts are matched.

The package is designed to be used in an insulating medium such as resin, oil or SF6 gas.




MAM420

Cathode indicated by a red band.

Fig.1 Simplified outline (SOD119AB) and symbol.

## LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|---|---|---|---|---|---|
| $V_{RRM}$ | repetitive peak reverse voltage | | – | 2 | kV |
| $V_{RWM}$ | crest working reverse voltage | | – | 2 | kV |
| $I_{F(AV)}$ | average forward current | | – | 50 | mA |
| $I_{FRM}$ | repetitive peak forward current | | – | 500 | mA |
| $I_{RSM}$ | non-repetitive peak reverse current | t = 100 μs triangular pulse; $T_{j\ max}$ prior to surge | – | 50 | mA |
| $T_{stg}$ | storage temperature | | –65 | +200 | °C |
| $T_j$ | junction temperature | continuous | – | 175 | °C |
| | | maximum 30 minutes | – | 200 | °C |

## CHARACTERISTICS

$T_j$ = 25 °C unless otherwise specified.

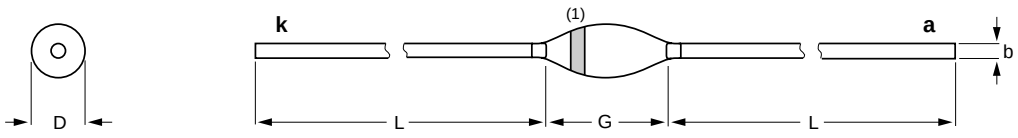
| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|---|---|---|---|---|---|
| $V_F$ | forward voltage | $I_F$ = 10 mA | 2.5 | 3.5 | V |
| $V_{(BR)R}$ | reverse avalanche breakdown voltage | $I_R$ = 100 μA | 2.6 | 3.7 | kV |
| $I_R$ | reverse current | $V_R = V_{RWMmax}$; $T_j$ = 175 °C | – | 30 | μA |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|---|---|---|---|---|
| $R_{th\ j\text{-}a}$ | thermal resistance from junction to ambient | $T_{amb} = T_{leads}$; lead length = 10 mm | 90 | K/W |

## PACKAGE OUTLINE

**Hermetically sealed glass package; axial leaded; 2 leads** **SOD119AB**




0 2.5 5 mm
scale

**DIMENSIONS (mm are the original dimensions)**

| UNIT | b | D max. | G max. | L min. |
|---|---|---|---|---|
| mm | 0.8 | 2.5 | 5.5 | 31.8 |

**Note**

1. The marking band indicates the cathode.

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | EIAJ | | | |
| SOD119AB | | | | | | 98-12-04 |

**DATA SHEET STATUS**

| DATA SHEET STATUS[1] | PRODUCT STATUS[2] | DEFINITIONS |
|---|---|---|
| Objective data | Development | This data sheet contains data from the objective specification for product development. Philips Semiconductors reserves the right to change the specification in any manner without notice. |
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**Contact information**

For additional information please visit **http://www.semiconductors.philips.com**. Fax: **+31 40 27 24825**
For sales offices addresses send e-mail to: **sales.addresses@www.semiconductors.philips.com**.



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