

Silicon Diode

BYX134GP

4kV/50mA

DATASHEET

OEM – Philips

Source: Philips Databook 1999

High-voltage car ignition diodes

BYX134GP

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.

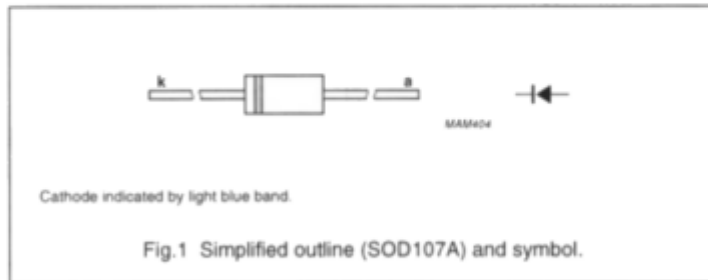
DESCRIPTION

Rugged glass package, using a high temperature alloyed construction.

The SOD107A 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.



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_{RRM}	repetitive peak reverse voltage		–	4	kV
V_{RWM}	crest working reverse voltage		–	4	kV
$I_{F(AV)}$	average forward current		–	50	mA
I_{RSM}	non-repetitive peak reverse current	$t = 100 \mu\text{s}$ triangular pulse; T_{jmax} prior to surge	–	50	mA
T_{stg}	storage temperature		–65	175	°C
T_j	junction temperature	continuous	–	175	°C

CHARACTERISTICS

$T_j = 25 \text{ °C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
V_F	forward voltage	$I_F = 10 \text{ mA}$	5	7	V
$V_{(BR)R}$	reverse avalanche breakdown voltage	$I_R = 100 \mu\text{A}$	5.5	7.5	kV
I_R	reverse current	$V_R = V_{RWMmax}; T_j = 175 \text{ °C}$	–	30	μA

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th j-a}$	thermal resistance from junction to ambient	$T_{amb} = T_{leads}$; lead length = 10 mm	100	K/W