
**Is Now Part of**

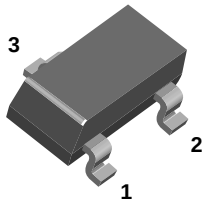

**ON Semiconductor®**

**To learn more about ON Semiconductor, please visit our website at**
**www.onsemi.com**

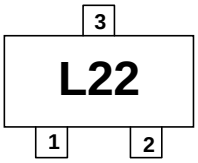
Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

FAIRCHILD
SEMICONDUCTOR®

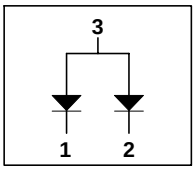
# BAS35




SOT-23




**Connection Diagram**




## Small Signal Diode

### Absolute Maximum Ratings*

$T_A$ = 25°C unless otherwise noted

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{RRM}$ | Maximum Repetitive Reverse Voltage | 120 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current | 200 | mA |
| $I_{FSM}$ | Non-repetitive Peak Forward Surge Current<br>Pulse Width = 1.0 second<br>Pulse Width = 1.0 microsecond | <br>1.0<br>2.0 | <br>A<br>A |
| $T_{stg}$ | Storage Temperature Range | -55 to +150 | °C |
| $T_J$ | Operating Junction Temperature | 150 | °C |

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**NOTES**:

**1)** These ratings are based on a maximum junction temperature of 150 degrees C.

**2)** These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $P_D$ | Power Dissipation | 350 | mW |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 357 | °C/W |

### Electrical Characteristics

$T_A$ = 25°C unless otherwise noted

| Symbol | Parameter | Test Conditions | Min | Max | Units |
|---|---|---|---|---|---|
| $V_R$ | Breakdown Voltage | $I_R$ = 1.0 mA | 120 | | V |
| $V_F$ | Forward Voltage | $I_F$ = 10 mA<br>$I_F$ = 50 mA<br>$I_F$ = 100 mA<br>$I_F$ = 200 mA<br>$I_F$ = 400 mA | | 750<br>840<br>900<br>1.0<br>1.25 | mV<br>mV<br>mV<br>V<br>V |
| $I_R$ | Reverse Current | $V_R$ = 90 V<br>$V_R$ = 90 V, $T_A$ = 150°C | | 100<br>100 | nA<br>µA |
| $C_T$ | Total Capacitance | $V_R$ = 0, f = 1.0 MHz | | 35 | pF |
| $t_{rr}$ | Reverse Recovery Time | $I_F$ = $I_R$ = 10 mA, $I_{RR}$ = 1.0 mA, $R_L$ = 100 Ω | | 50 | ns |

**TRADEMARKS**

The following are registered and unregistered trademarks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

| | | | | |
|---|---|---|---|---|
| ACEx™ | FAST ® | OPTOLOGIC™ | SMART START™ | VCX™ |
| Bottomless™ | FASTr™ | OPTOPLANAR™ | STAR*POWER™ | |
| CoolFET™ | FRFET™ | PACMAN™ | Stealth™ | |
| *CROSSVOLT*™ | GlobalOptoisolator™ | POP™ | SuperSOT™-3 | |
| DenseTrench™ | GTO™ | Power247™ | SuperSOT™-6 | |
| DOME™ | HiSeC™ | PowerTrench® | SuperSOT™-8 | |
| EcoSPARK™ | ISOPLANAR™ | QFET™ | SyncFET™ | |
| $E^2$CMOS™ | LittleFET™ | QS™ | TinyLogic™ | |
| EnSigna™ | MicroFET™ | QT Optoelectronics™ | TruTranslation™ | |
| FACT™ | MicroPak™ | Quiet Series™ | UHC™ | |
| FACT Quiet Series™ | MICROWIRE™ | SILENT SWITCHER® | UltraFET® | |

STAR*POWER is used under license

**DISCLAIMER**

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

**LIFE SUPPORT POLICY**

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.
As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

**PRODUCT STATUS DEFINITIONS**

**Definition of Terms**

| Datasheet Identification | Product Status | Definition |
|---|---|---|
| Advance Information | Formative or In Design | This datasheet contains the design specifications for product development. Specifications may change in any manner without notice. |
| Preliminary | First Production | This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design. |
| No Identification Needed | Full Production | This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design. |
| Obsolete | Not In Production | This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only. |

## PUBLICATION ORDERING INFORMATION

**LITERATURE FULFILLMENT**:
Literature Distribution Center for ON Semiconductor
19521 E. 32nd Pkwy, Aurora, Colorado 80011 USA
**Phone**: 303−675−2175 or 800−344−3860 Toll Free USA/Canada
**Fax**: 303−675−2176 or 800−344−3867 Toll Free USA/Canada
**Email**: orderlit@onsemi.com

**N. American Technical Support**: 800−282−9855 Toll Free USA/Canada
**Europe, Middle East and Africa Technical Support:**
Phone: 421 33 790 2910
**Japan Customer Focus Center**
Phone: 81−3−5817−1050

**ON Semiconductor Website**: **www.onsemi.com**

**Order Literature**: http://www.onsemi.com/orderlit

For additional information, please contact your local Sales Representative

# X-ON Electronics

Largest Supplier of Electrical and Electronic Components

***Click to view similar products for*** Diodes - General Purpose, Power, Switching ***category:***

***Click to view products by*** ON Semiconductor ***manufacturer:***

Other Similar products are found below :

RD0306T-H BAQ33-GS18 BAV17-TR BAV19-TR 1N3611 NTE156A NTE525 NTE571 NTE574 NTE5804 NTE5806 NTE6244 1SS181-TP 1SS193,LF 1SS400CST2RA SDAA13 SHN2D02FUTW1T1G LS4151GS08 1N4449 1N456A 1N4934-E3/73 1N914B 1N914BTR RFUH20TB3S BAS 28 E6327 BAV199-TP BAW56DWQ-7-F BAW75-TAP MM230L-CAA IDW40E65D1 JAN1N3600 LL4151-GS18 053684A SMMSD4148T3G 707803H NSVDAN222T1G SP000010217 ACDSW4448-HF CDSZC01100-HF BAV199E6433HTMA1 BAV70M3T5G SMBT2001T1G NTE5801 NTE5800 NTE5808 NTE6240 NTE6248 DLM10C-AT1 BAS28-7 BAW56HDW-13