

# Small Signal Diode

## BAS29

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted.)

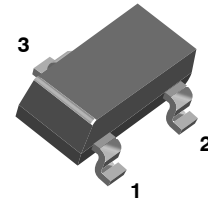
| Symbol             | Parameter                                                                                   | Value       | Unit   |
|--------------------|---------------------------------------------------------------------------------------------|-------------|--------|
| V <sub>RRM</sub>   | Maximum Repetitive Reverse Voltage                                                          | 120         | V      |
| I <sub>F(AV)</sub> | Average Rectified Forward Current                                                           | 200         | mA     |
| I <sub>FSM</sub>   | Non-Repetitive Peak Forward Current<br>Pulse Width = 1.0 Second<br>Pulse Width = 1.0 Second | 1.0<br>2.0  | A<br>A |
| T <sub>STG</sub>   | Storage Temperature Range                                                                   | -55 to +150 | °C     |
| T <sub>J</sub>     | Operating Junction Temperature                                                              | 150         | °C     |

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

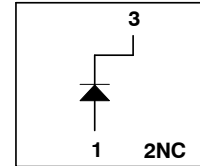
1. These ratings are based on a maximum junction temperature of 150°C.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### THERMAL CHARACTERISTICS

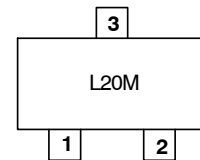
| Symbol           | Parameter                                  | Value | Unit |
|------------------|--------------------------------------------|-------|------|
| P <sub>D</sub>   | Power Dissipation                          | 350   | mW   |
| R <sub>θJA</sub> | Thermal Resistance,<br>Junction to Ambient | 357   | °C/W |



SOT-23 (TO-236)  
CASE 318



### MARKING DIAGRAM



L20 = Specific Device Code  
M = Data Code

### ORDERING INFORMATION

| Device | Package                             | Shipping <sup>†</sup> |
|--------|-------------------------------------|-----------------------|
| BAS29  | SOT-23-3<br>(Pb-Free / Halide Free) | 3000 /<br>Tape & Reel |

<sup>†</sup>For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, [BRD8011/D](#).

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted.)

| Symbol          | Parameter             | Test Conditions                                                                                                                   | Min | Max                                  | Unit     |
|-----------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------|----------|
| V <sub>R</sub>  | Breakdown Voltage     | I <sub>R</sub> = 1.0 mA                                                                                                           | 120 | –                                    | V        |
| V <sub>F*</sub> | Forward Voltage       | I <sub>F</sub> = 10 mA<br>I <sub>F</sub> = 50 mA<br>I <sub>F</sub> = 100 mA<br>I <sub>F</sub> = 200 mA<br>I <sub>F</sub> = 400 mA | –   | 0.75<br>0.84<br>0.90<br>1.00<br>1.25 | V        |
| I <sub>R*</sub> | Reverse Current       | V <sub>R</sub> = 90 V<br>V <sub>R</sub> = 90 V, T <sub>A</sub> = 150°C                                                            | –   | 100<br>100                           | nA<br>μA |
| C <sub>T</sub>  | Total Capacitance     | V <sub>R</sub> = 0, f = 1.0 MHz                                                                                                   | –   | 2.0                                  | pF       |
| t <sub>rr</sub> | Reverse Recovery Time | I <sub>F</sub> = I <sub>R</sub> = 30 mA, I <sub>RR</sub> = 3.0 mA,<br>R <sub>L</sub> = 100 Ω                                      | –   | 50<br>–                              | ns       |

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

\*Pulse test: Pulse width = 300 μs, Duty Cycle = 2%

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