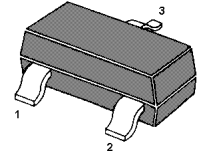
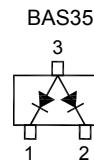
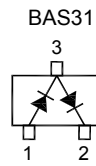
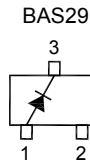


# BAS29, BAS31, BAS35-AH

## Silicon Epitaxial Planar Switching Diodes

### Features

- AEC-Q101 Qualified and PPAP Capable
- Halogen and Antimony Free(HAF),  
RoHS compliant



BAS29 Marking Code: **L20**  
BAS31 Marking Code: **L21**  
BAS35 Marking Code: **L22**  
TO-236 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                                                                              | Symbol      | Value         | Unit             |
|----------------------------------------------------------------------------------------|-------------|---------------|------------------|
| Repetitive Peak Reverse Voltage                                                        | $V_{RRM}$   | 120           | V                |
| Maximum Average Forward Current                                                        | $I_{F(AV)}$ | 200           | mA               |
| Repetitive Peak Forward Current                                                        | $I_{FRM}$   | 600           | mA               |
| Non-Repetitive Peak Forward Surge Current<br>$t = 1\ \mu\text{s}$<br>$t = 1\ \text{s}$ | $I_{FSM}$   | 2<br>1        | A                |
| Power Dissipation                                                                      | $P_{tot}$   | 350           | mW               |
| Junction Temperature                                                                   | $T_j$       | 150           | $^\circ\text{C}$ |
| Storage Temperature Range                                                              | $T_{stg}$   | - 55 to + 150 | $^\circ\text{C}$ |

### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter                                                                                               | Symbol      | Min. | Max. | Unit          |
|---------------------------------------------------------------------------------------------------------|-------------|------|------|---------------|
| Forward Voltage<br>at $I_F = 10\ \text{mA}$                                                             | $V_F$       | -    | 750  | mV            |
| at $I_F = 50\ \text{mA}$                                                                                | $V_F$       | -    | 840  | mV            |
| at $I_F = 100\ \text{mA}$                                                                               | $V_F$       | -    | 900  | mV            |
| at $I_F = 200\ \text{mA}$                                                                               | $V_F$       | -    | 1    | V             |
| at $I_F = 400\ \text{mA}$                                                                               | $V_F$       | -    | 1.25 | V             |
| Reverse Current<br>at $V_R = 90\ \text{V}$                                                              | $I_R$       | -    | 100  | nA            |
| at $V_R = 90\ \text{V}$ , $T_j = 150^\circ\text{C}$                                                     | $I_R$       | -    | 100  | $\mu\text{A}$ |
| Reverse Breakdown Voltage<br>at $I_R = 1\ \text{mA}$                                                    | $V_{(BR)R}$ | 120  | -    | V             |
| Total Capacitance<br>at $V_R = 0\ \text{V}$ , $f = 1\ \text{MHz}$                                       | $C_T$       | -    | 35   | pF            |
| Reverse Recovery Time<br>at $I_F = I_R = 10\ \text{mA}$ , $I_{rr} = 1\ \text{mA}$ , $R_L = 100\ \Omega$ | $t_{rr}$    | -    | 50   | ns            |

