

**BAS28**

**SURFACE MOUNT SILICON  
DUAL, ISOLATED HIGH SPEED  
SWITCHING DIODES**



[www.centralemi.com](http://www.centralemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BAS28 consists of two electrically isolated ultra-high speed silicon switching diodes manufactured by the epitaxial planar process and packaged in an epoxy molded SOT-143 surface mount case. This device is designed for high speed switching applications.

**MARKING CODE: A61 or JTW**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Continuous Reverse Voltage  
 Peak Repetitive Reverse Voltage  
 Continuous Forward Current  
 Peak Repetitive Forward Current  
 Peak Forward Surge Current,  $t_p=1.0\mu\text{s}$   
 Peak Forward Surge Current,  $t_p=1.0\text{ms}$   
 Peak Forward Surge Current,  $t_p=1.0\text{s}$   
 Power Dissipation  
 Operating and Storage Junction Temperature  
 Thermal Resistance

**SYMBOL**

$V_R$  75  
 $V_{RRM}$  85  
 $I_F$  250  
 $I_{FRM}$  500  
 $I_{FSM}$  4.0  
 $I_{FSM}$  2.0  
 $I_{FSM}$  1.0  
 $P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\Theta_{JA}$  357

**UNITS**

V  
 V  
 mA  
 mA  
 A  
 A  
 A  
 mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

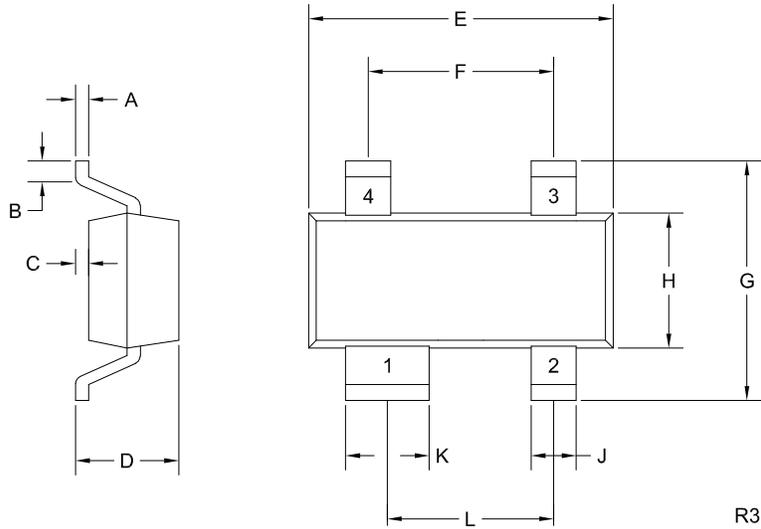
**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

| SYMBOL   | TEST CONDITIONS   | MIN | MAX  | UNITS         |
|----------|---|-----|------|---------------|
| $I_R$    | $V_R=25\text{V}, T_A=150^\circ\text{C}$                   |     | 30   | $\mu\text{A}$ |
| $I_R$    | $V_R=75\text{V}$  |     | 1.0  | $\mu\text{A}$ |
| $I_R$    | $V_R=75\text{V}, T_A=150^\circ\text{C}$                   |     | 50   | $\mu\text{A}$ |
| $V_F$    | $I_F=1.0\text{mA}$  |     | 715  | mV            |
| $V_F$    | $I_F=10\text{mA}$   |     | 855  | mV            |
| $V_F$    | $I_F=50\text{mA}$   |     | 1.00 | V             |
| $V_F$    | $I_F=150\text{mA}$  |     | 1.25 | V             |
| $C_J$    | $V_R=0, f=1.0\text{MHz}$                                  |     | 2.0  | pF            |
| $t_{rr}$ | $I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$ |     | 6.0  | ns            |
| $Q_s$    | $I_F=10\text{mA}, V_R=5.0\text{V}, R_L=500\Omega$         |     | 45   | pC            |
| $V_{FR}$ | $I_F=10\text{mA}, t_f=20\text{ns}$                        |     | 1.75 | V             |

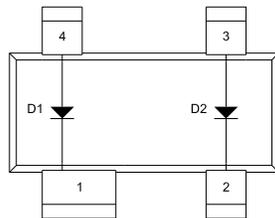
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**SOT-143 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATION**



**LEAD CODE:**

- 1) Cathode D1
- 2) Cathode D2
- 3) Anode D2
- 4) Anode D1

| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.003  | 0.008 | 0.08        | 0.20 |
| B      | 0.006  | -     | 0.15        | -    |
| C      | 0.000  | 0.005 | 0.01        | 0.13 |
| D      | 0.035  | 0.045 | 0.89        | 1.14 |
| E      | 0.110  | 0.120 | 2.79        | 3.04 |
| F      | 0.075  |       | 1.90        |      |
| G      | 0.083  | 0.102 | 2.10        | 2.60 |
| H      | 0.047  | 0.055 | 1.19        | 1.40 |
| J      | 0.012  | 0.020 | 0.30        | 0.50 |
| K      | 0.030  | 0.037 | 0.76        | 0.93 |
| L      | 0.067  |       | 1.70        |      |

SOT-143 (REV: R3)

**MARKING CODE: A61 or JTW**

R8 (19-September 2018)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)

# Product End of Life Notification

|                           |                  |
|---------------------------|------------------|
| <b>PDN ID:</b>            | PDN01220 Rev:001 |
| <b>Notification Date:</b> | 2/09/23          |
| <b>Last Buy Date:</b>     | N/A              |
| <b>Last Shipment Date</b> | N/A              |

Summary: All devices manufactured in the SOT-143 package are discontinued and now classified as End of Life (EOL). Rev:001 of PDN#01220, Feb 9, 2023, issued to remove BAW100G BK and BAW100G TR to address market demand; BAW100G BK and BAW100G TR are now active devices.

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

**\* All Plating types (PBFREE, TIN/LEAD) for each item listed are included in this notice.**

| <b>Central Part Number</b> | <b>Suggested Replacement</b>                         |
|----------------------------|--|
| BAS28 BK                   | N/A  |
| BAS28 TR                   | N/A  |
| BAW100 BK                  | N/A  |
| BAW100 TR                  | N/A  |
| CMFSH-3I BK                | N/A  |
| CMFSH-3I TR                | N/A  |
| BAW100G BK                 | Item BAW100G BK removed from PDN; device now active. |
| BAW100G TR                 | Item BAW100G TR removed from PDN; device now active. |

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit <https://my.centalsemi.com/submit-inquiry?type=ER> to submit an online inquiry.

**DISCLAIMER:** This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.