

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

1N5817

1N5818

1N5819

SCHOTTKY BARRIER RECTIFIER

JEDEC DO-41 CASE

**DESCRIPTION**

The CENTRAL SEMICONDUCTOR 1N5817 Series types are Schottky Barrier Rectifiers mounted in an axial lead epoxy case using a metal to silicon junction to yield low forward voltage drop and instantaneous reverse recovery times.

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

|                                                           | SYMBOL         | 1N5817      | 1N5818 | 1N5819 | UNIT             |
|-----------------------------------------------------------|----------------|-------------|--------|--------|------------------|
| Peak Repetitive Reverse Voltage                           | $V_{RRM}$      | 20          | 30     | 40     | V                |
| DC Blocking Voltage                                       | $V_R$          | 20          | 30     | 40     | V                |
| RMS Reverse Voltage                                       | $V_R(RMS)$     | 14          | 21     | 28     | V                |
| Average Forward Surge Current ( $T_L=100^\circ\text{C}$ ) | $I_0$          |             | 1.0    |        | A                |
| Peak Forward Surge Current                                | $I_{FSM}$      |             | 25     |        | A                |
| Operating and Storage<br>Junction Temperature             | $T_J, T_{STG}$ | -65 TO +150 |        |        | $^\circ\text{C}$ |

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

| SYMBOL | TEST CONDITIONS                      | 1N5817 |       | 1N5818 |       | 1N5819 |       | UNIT |
|--------|--------------------------------------|--------|-------|--------|-------|--------|-------|------|
|        |                                      | MIN    | MAX   | MIN    | MAX   | MIN    | MAX   |      |
| $I_R$  | $V_R=V_{RRM}$                        |        | 1.0   |        | 1.0   |        | 1.0   | mA   |
| $I_R$  | $V_R=V_{RRM}, T_A=100^\circ\text{C}$ |        | 10    |        | 10    |        | 10    | mA   |
| $V_F$  | $I_F=0.1\text{A}$                    |        | 0.320 |        | 0.330 |        | 0.340 | V    |
| $V_F$  | $I_F=1.0\text{A}$                    |        | 0.450 |        | 0.550 |        | 0.600 | V    |
| $V_F$  | $I_F=3.1\text{A}$                    |        | 0.750 |        | 0.875 |        | 0.900 | V    |

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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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## **CONTACT US**

### **Corporate Headquarters & Customer Support Team**

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