

HIGH-RELIABILITY PRODUCTS

Features

$V_R = 150V$
 $I_R = 5.0\mu A$
 $t_{rr} = 30ns$
 $V_F = 0.875V$ at $I_F = 4.0A$

Quick Reference Data

- ◆ Low reverse leakage current
- ◆ Very low reverse recovery time
- ◆ Hermetically sealed
- ◆ Good thermal shock resistance
- ◆ Low forward voltage drop

Absolute Maximum Ratings

Electrical specifications @ $T_A = 25^\circ C$ unless otherwise specified.

| Parameter | Symbol | 1N5811C | Units |
|--|-----------------|-------------|--------------|
| Maximum Reccurent Peak Reverse Voltage | V_{RRM} | 150 | V |
| Maximum RMS Voltage | V_{RMS} | 112 | V |
| Maximum DC blocking Voltage | Vdc | 150 | V |
| Maximum Average Forward Rectified Current 3/8"lead length at $T_A = -75^\circ C$ | I_{FAV} | 6.0 | A |
| Peak Forward Surge Current 8.3ms single Half sinewave superimposed on rated load | I_{FSM} | 125 | A |
| Maximum Instantaneous Forward Voltage at 4.0A | V_F | 0.875 | V |
| Maximum DC Reverse Current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$ | I_R | 5.0 150 | μA |
| Maximum Reverse Recovery Time ⁽¹⁾ | t _{rr} | 30 | ns |
| Typical Thermal Resistance ⁽²⁾ | $R_{\theta JL}$ | 35.5 | $^\circ C/W$ |
| Storage and Operating Juntion Temperature | T_{STG}, T_J | -65 to +175 | $^\circ C$ |

Note:

1. Reverse Recovery Condition $I_F = 1.0A$, $I_R = 1.0A$, $I_{RR} = 0.1A$
2. Thermal Resistance from Junction to Ambient at 3/8"lead length.

Rating and Characteristic Curves

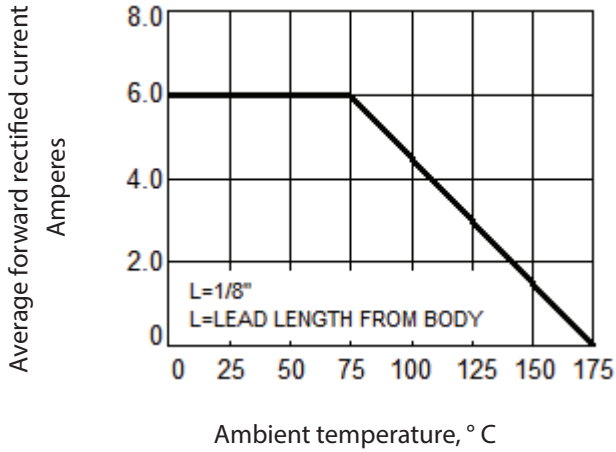


Figure 1. Forward current derating curve

Peak forward surge current, Amperes

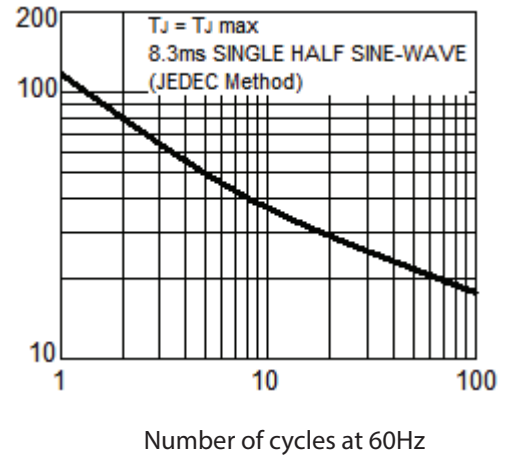


Figure 2. Maximum non-repetitive peak forward surge current

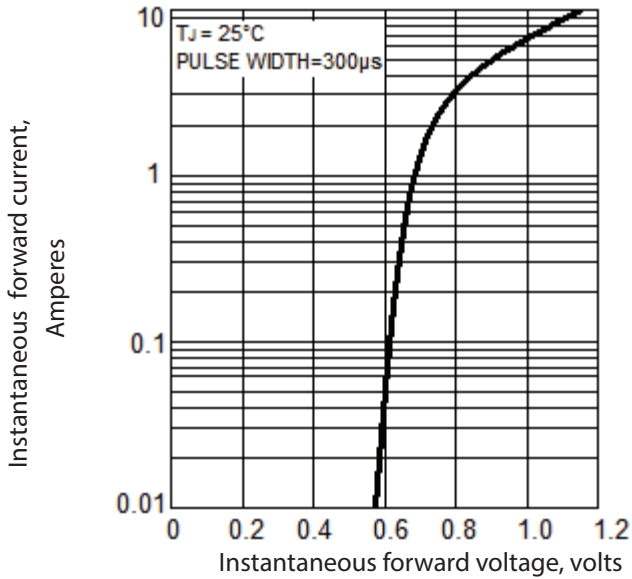


Figure 3. Typical instantaneous forward characteristics

Instantaneous reverse leakage current, Microamperes

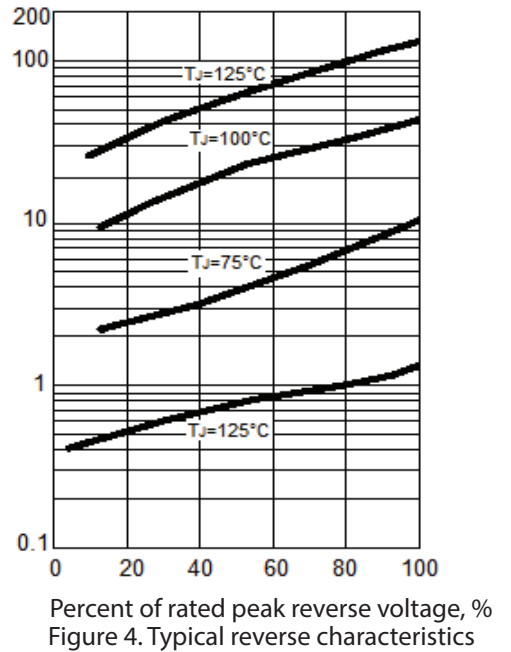


Figure 4. Typical reverse characteristics

Ordering Information

| Part Number | Packaging ⁽¹⁾ |
|-------------|--------------------------|
| 1N5811C | Bulk |
| 1N5811C.TR | Tape and reel |

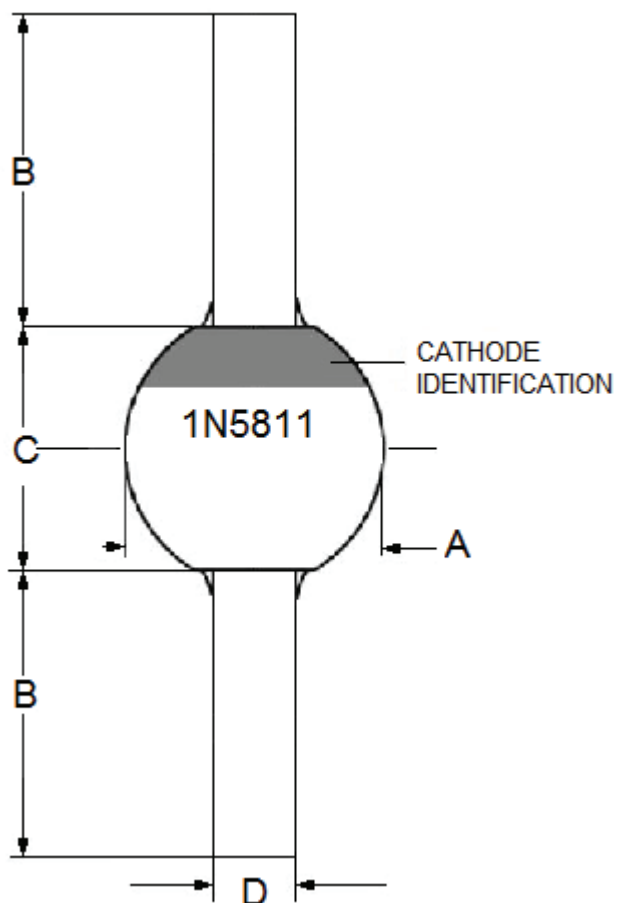
NOTE:

(1)Please consult factory for quantities

Marking

Component will have a cathode band identifier and marked 1N5811

Outline Drawing



| Dimension | Dimensions | | | |
|-----------|------------|-------|-------------|------|
| | Inches | | Millimeters | |
| | Min | Max | Min | Max |
| A | - | 0.177 | - | 4.50 |
| B | 1.014 | - | 26.00 | - |
| C | 0.165 | 0.189 | 4.20 | 4.80 |
| D | - | 0.043 | - | 1.10 |



IMPORTANT NOTICE

Information relating to this product and the application or design described herein is believed to be reliable, however such information is provided as a guide only and Semtech assumes no liability for any errors in this document, or for the application or design described herein. Semtech reserves the right to make changes to the product or this document at any time without notice. Buyers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. Semtech warrants performance of its products to the specifications applicable at the time of sale, and all sales are made in accordance with Semtech's standard terms and conditions of sale.

SEMTECH PRODUCTS ARE NOT DESIGNED, INTENDED, AUTHORIZED OR WARRANTED TO BE SUITABLE FOR USE IN LIFE-SUPPORT APPLICATIONS, DEVICES OR SYSTEMS, OR IN NUCLEAR APPLICATIONS IN WHICH THE FAILURE COULD BE REASONABLY EXPECTED TO RESULT IN PERSONAL INJURY, LOSS OF LIFE OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. INCLUSION OF SEMTECH PRODUCTS IN SUCH APPLICATIONS IS UNDERSTOOD TO BE UNDERTAKEN SOLELY AT THE CUSTOMER'S OWN RISK. Should a customer purchase or use Semtech products for any such unauthorized application, the customer shall indemnify and hold Semtech and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs damages and attorney fees which could arise.

The Semtech name and logo are registered trademarks of the Semtech Corporation. All other trademarks and trade names mentioned may be marks and names of Semtech or their respective companies. Semtech reserves the right to make changes to, or discontinue any products described in this document without further notice. Semtech makes no warranty, representation or guarantee, express or implied, regarding the suitability of its products for any particular purpose. All rights reserved.

© Semtech 2017

Contact Information

Semtech Corporation
200 Flynn Road, Camarillo, CA 93012
Phone: (805) 498-2111, Fax: (805) 498-3804
www.semtech.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Rectifiers](#) category:

Click to view products by [Semtech](#) manufacturer:

Other Similar products are found below :

[70HFR40](#) [RL252-TP](#) [150KR30A](#) [1N5397](#) [NTE5841](#) [NTE6038](#) [SCF5000](#) [1N4002G](#) [1N4005-TR](#) [JANS1N6640US](#) [VS-80-7161](#) [481235F](#)
[RRE02VS6SGTR](#) [067907F](#) [MS306](#) [70HF40](#) [T85HFL60S02](#) [US2JFL-TP](#) [A1N5404G-G](#) [CRS04\(T5L,TEMQ\)](#) [ACGRA4007-HF](#)
[ACGRB207-HF](#) [CLH03\(TE16L,Q\)](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [NTE6356](#) [NTE6359](#) [NTE6002](#) [NTE6023](#) [NTE6039](#) [NTE6077](#)
[85HFR60](#) [40HFR60](#) [1N1186RA](#) [70HF120](#) [85HFR80](#) [D126A45C](#) [SCF7500](#) [D251N08B](#) [SCHJ22.5K](#) [SM100](#) [SCPA2](#) [SCH10000](#) [SDHD5K](#)
[VS-12FL100S10](#) [ACGRA4001-HF](#) [D1821SH45T PR](#) [D1251S45T](#) [NTE5990](#) [NTE6358](#)