

### HIGH-RELIABILITY PRODUCTS

#### Features

VR = 200V  
 IR = 5.0μA  
 trr = 150ns  
 VF = 1.3V at IF = 1A

#### Quick reference data

- ◆ Low reverse leakage current
- ◆ Plastic sealed
- ◆ Good thermal shock resistance
- ◆ Low forward voltage drop

### Absolute Maximum Ratings

Electrical specifications @ T<sub>A</sub> = 25°C unless otherwise specified.

Parameter	Symbol	1N4942C	Units
Maximum Reccurent Peak Reverse Voltage	V <sub>RRM</sub>	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	140	V
Maximum DC blocking Voltage	V <sub>dc</sub>	200	V
Maximum Average Forward Rectified Current 3/8"lead length at T <sub>A</sub> =55°C	I <sub>F(av)</sub>	1.0	A
Peak Forward Surge Current 8.3ms single Half sinewave superimposed on rated load	I <sub>FSM</sub>	25	A
Maximum Instantaneous Forward Voltage at 1.0A and 25°C	V <sub>F</sub>	1.3	V
Maximum DC Reverse Current T <sub>A</sub> =25°C at rated DC blocking voltage T <sub>A</sub> =125°C	I <sub>R</sub>	5.0 200	μA
Maximum Reverse Recovery Time <sup>(1)</sup>	trr	150	ns
Typical Junction Capacitance <sup>(2)</sup>	C <sub>J</sub>	15	pF
Typical Thermal Resistance <sup>(3)</sup>	R <sub>θJL</sub>	55	°C/W
Storage and Operating Juntion Temperature	T <sub>STG</sub> , T <sub>J</sub>	-65 to +175	°C

Note:

1. Reverse Recovery Condition I<sub>F</sub> =0.5A, I<sub>R</sub> =1.0A, I<sub>RR</sub> =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length.

# Rating and Characteristic Curves

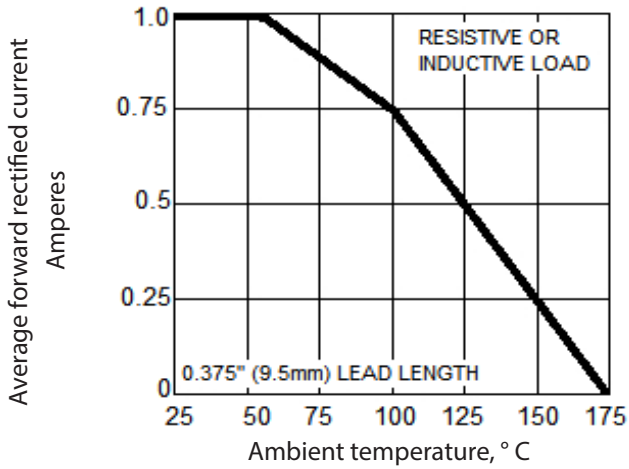


Figure 1. Forward current derating curve

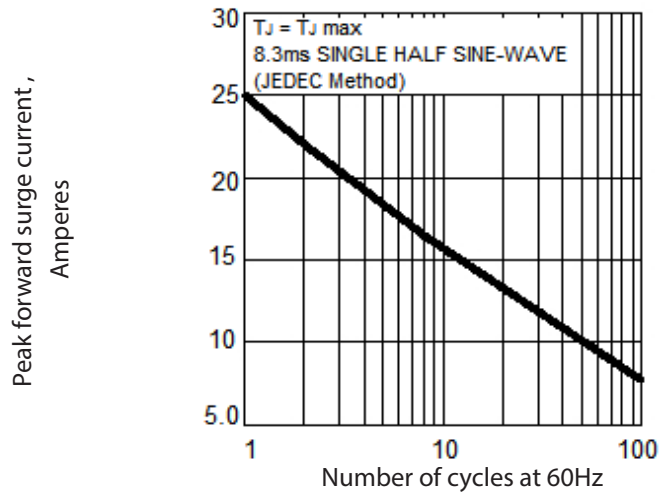


Figure 2. Maximum non-repetitive peak forward surge current

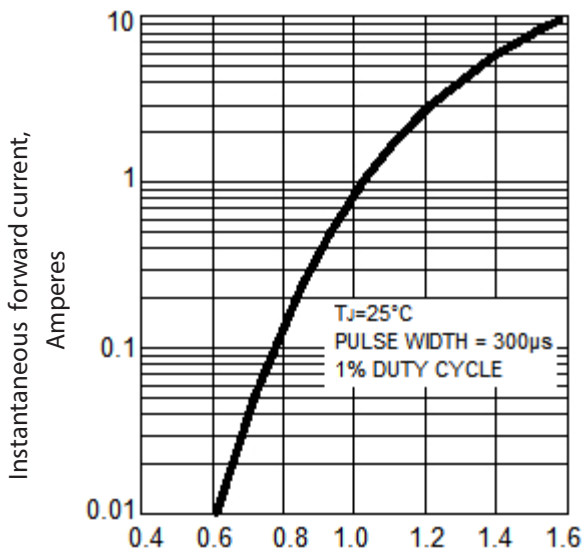


Figure 3. Typical instantaneous forward characteristics

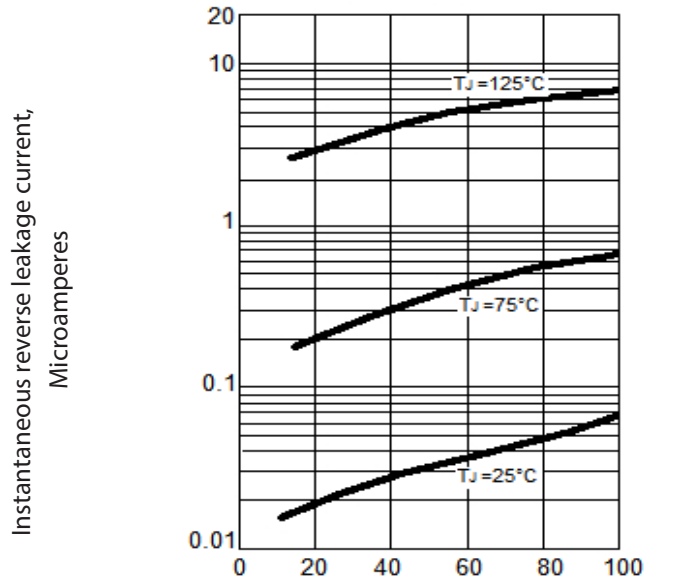


Figure 4. Typical reverse characteristics

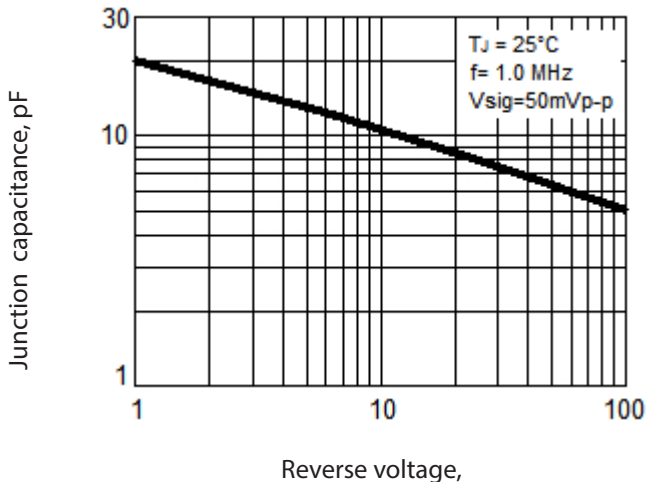


Figure 5. Typical junction capacitance

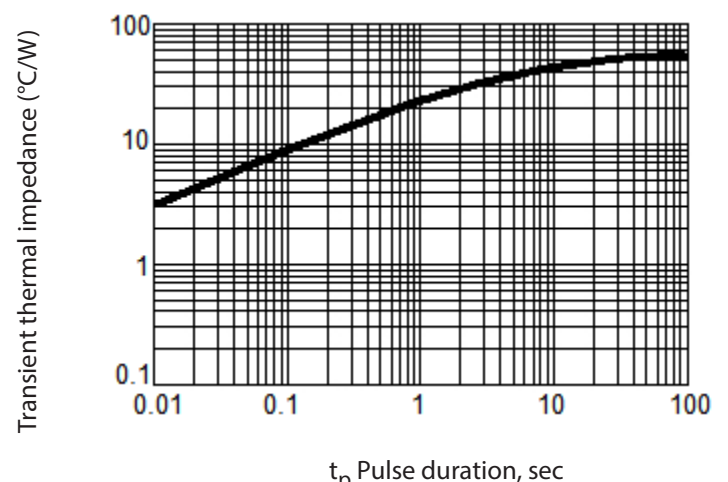


Figure 6. Typical transient thermal impedance

## Ordering Information

Part Number	Packaging <sup>(1)</sup>
1N4942C	Bulk
1N4942C.TR	Tape and reel

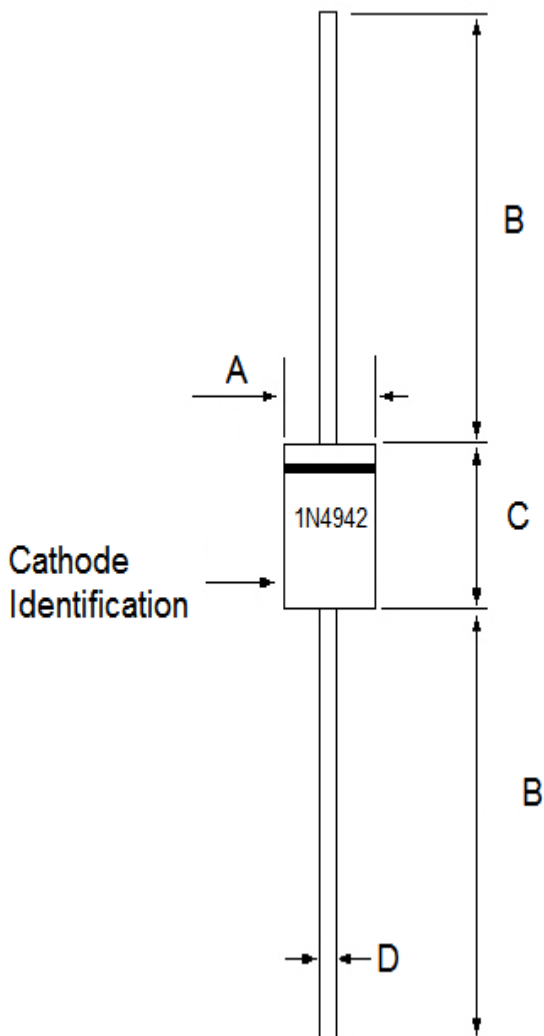
NOTE:

(1)Please consult factory for quantities

## Marking

Component will have a cathode band identifier and marked 1N4942

## Outline Drawing



Dimension	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.080	0.107	2.00	2.70
B	1.000	-	25.40	-
C	0.160	0.205	4.10	5.20
D	0.028	0.034	0.71	0.86



---

#### 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](http://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](#)