

## HERMETIC ULTRAFAST DIODE

**Description: 3Amp, 20nS diode in hermetic package**

### Applications / Markets:

- Switch-mode power supply
- Data communication and telecommunications system equipment
- Hi-rel industry
- Military
- Aerospace

### Features / benefits:

- Ultrafast Soft Recovery
- Low Forward Voltage Drop
- High Efficiency Switching
- High Surge Capacity
- Available In Leaded And Surface Mount Packaging
- Upscreen to JANTX, JANTXV and JANS per Mil-Prf-19500 available
- All Package Styles Are Hermetic, Non-Cavity
- Metallurgical bond

Maximum ratings  $T_A=+25^{\circ}\text{C}$  unless otherwise specified

Types	PIV V(pk)	Io		Ir @ PIV $\mu\text{A}$		I <sub>FSM</sub> Tp=1/120 s A(pk)	Vf		Trr (3) nS	R <sub>θJEC</sub> L=0 $^{\circ}\text{C}/\text{W}$	Z <sub>θJX</sub> $^{\circ}\text{C}/\text{W}$	T <sub>STG</sub> , T <sub>J</sub> $^{\circ}\text{C}$
		Io <sub>1</sub> (1) Amps	Io <sub>2</sub> (2)	25 °C	100°C		V	A				
SXX175UF3A	175	6.0	3.0	5.0	150	125	1.0	6.0	20	10	1.5	-65 to 175
SXX200UF3A	200	6.0	3.0	5.0	150	125	1.0	6.0	20	10	1.5	-65 to 175
SXX225UF3A	225	6.0	3.0	5.0	150	125	1.0	6.0	20	10	1.5	-65 to 175
SXX250UF3A	250	6.0	3.0	5.0	150	125	1.0	6.0	20	10	1.5	-65 to 175

XX = package style: AL: Axial Lead; SM: Surface Mount

(1)  $T_L=75^{\circ}\text{C}$  L=.375in. for axial lead package;  $T_{EC}=T_L$  at L=0 for surface mount package

(2)  $T_A=55^{\circ}\text{C}$ . This rating is typical for boards where thermal resistance from mounting point to ambient is sufficiently controlled where  $T_{J(\text{MAX})}$  is not exceeded.

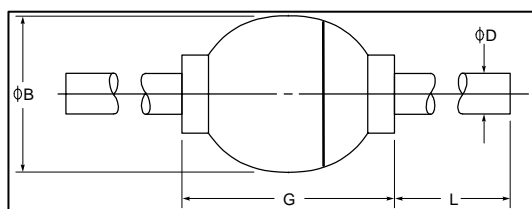
(3) Reverse recovery time conditions:  $I_f=0.5\text{A}$   $I_r=1.0\text{A}$   $I_{rr}=0.25\text{A}$

**SENSITRON**

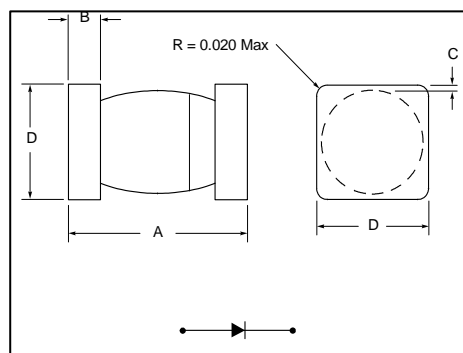
**TECHNICAL DATA  
 DATASHEET 4241, Rev-**

**Package Information**

Axial Lead



Surface Mount



PACKAGE STYLE	DIMENSIONS - INCHES ( MILLIMETERS)			
	$\phi B$	$\phi D$	G	L
304	.115/.165 2.92/4.19	.037/.042 .94/1.07	.130/.300 3.30/7.62	.90/1.30 22.9/33.0

PACKAGE STYLE	DIMENSIONS - INCHES ( MILLIMETERS)			
	A	B	C	D
MELF-B	.200/.225 5.08/5.72	.019/.028 .48/.72	.003 Min .076 Min	.137/.148 3.48/3.76

**DISCLAIMER:**

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.