

# **SENSITRON** **SEMICONDUCTOR**

## TECHNICAL DATA DATASHEET 4242, Rev-

### HERMETIC ULTRAFAST DIODE

**Description: 1Amp, 15nS diode in hermetic package**

#### Applications / Markets:

- Switch-mode power supply
- Datacommunication and telecommunication 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 $\mu\text{A}$		$I_{\text{FSM}}$ Tp=1/120 s	Vf		Tr (3)	$R_{\theta\text{JEC}}$ L=0	$Z_{\theta\text{JX}}$	$T_{\text{STG}}, T_{\text{J}}$
		Io <sub>1</sub> (1) Amps	Io <sub>2</sub> (2)	25°C	100°C		V	A				
SXX175UF-A	175	2.5	1.0	1.0	50	35	1.1	2.5	15	20	4.5	-65 to 175
SXX200UF-A	200	2.5	1.0	1.0	50	35	1.1	2.5	15	20	4.5	-65 to 175
SXX225UF-A	225	2.5	1.0	1.0	50	35	1.1	2.5	15	20	4.5	-65 to 175
SXX250UF-A	250	2.5	1.0	1.0	50	35	1.1	2.5	15	20	4.5	-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;  $T_{\text{EC}}=T_L$  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  $T_{\text{J(MAX)}}$  is not exceeded.

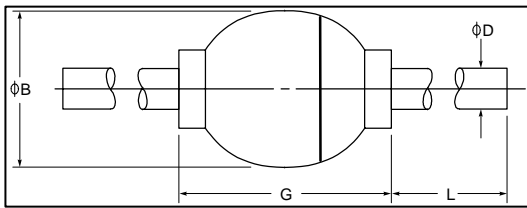
(3)Reverse recovery time conditions:  $I_{\text{r}}=0.5\text{A}$   $I_{\text{f}}=1.0\text{A}$   $I_{\text{rr}}=0.25\text{A}$

**SENSITRON**

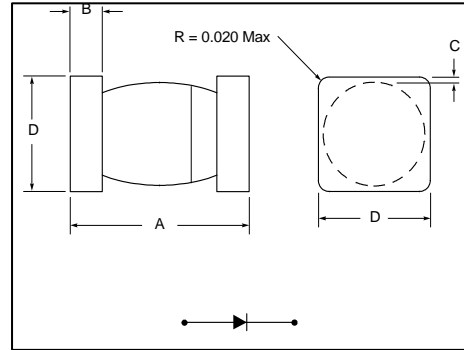
**TECHNICAL DATA**  
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**Package Information**

**Axial Lead**



**Surface Mount**



PACKAGE STYLE	DIMENSIONS - INCHES ( MILLIMETERS)			
	$\phi B$	$\phi D$	G	L
106	.065/.085	.027/.032	.125/.250	.700/1.30
	1.65/2.16	.69/.81	3.18/6.35	17.8/33.0

PACKAGE STYLE	DIMENSIONS - INCHES ( MILLIMETERS)			
	A	B	C	D
MELF-A	.168/.205	.019/.028	.003 Min	.091/.103
	4.27/5.21	.48/.72	.076 Min	3.48/3.76

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