# SENSITRON SEMICONDUCTOR

TECHNICAL DATA DATASHEET 4241, Rev-

# 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  $T_A = +25^{\circ}$ C unless otherwise specified

Types	PIV	Io		Ir @ PIV		$I_{FSM}$	Vf	Trr	$R_{\theta JEC}$	$Z_{ heta JX}$	$T_{STG}, T_{J}$	
				μΑ		Tp=1/120			(3)	L=0		
	V(pk)	Amps				S						
		$Io_1(1)$	Io <sub>2</sub> (2)	25 °C	100°C	A(pk)	V	A	nS	°C/W	°C/W	°C
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 °C L=.375in. for axial lead package;  $T_{EC}$  = $T_L$  at L=0 for surface mount package

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

(3)Reverse recovery time conditions:  $I_f$ =0.5A  $I_r$ =1.0A  $I_r$ =0.25A

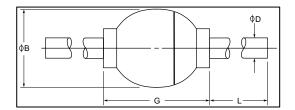
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## **SENSITRON**

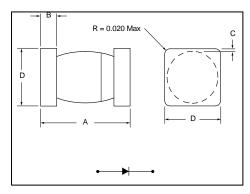
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## **Package Information**

#### Axial Lead



### Surface Mount



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

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

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