

TECHNICAL DATA
DATA SHEET 4971, REV.B

HERMETIC AXIAL / MELF HIGH EFFICIENTCY RECTIFIER

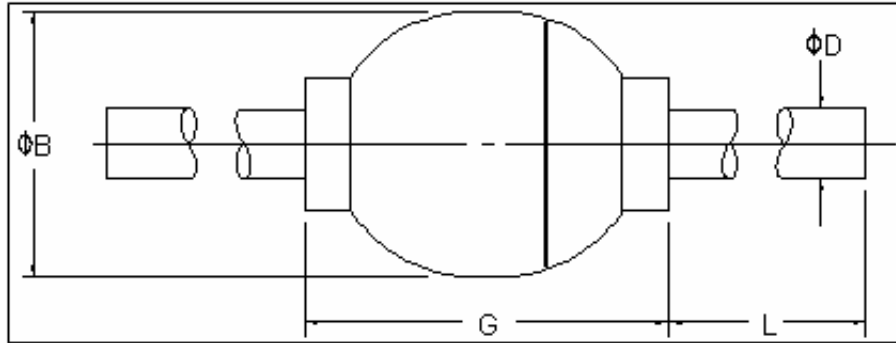
- Hermetic, non-cavity glass package
- Metallurgically bonded
- Manufacture & screen to JANS per MIL-PRF-19500/477 using Sensitron specification, 7700-409X
- Physical dimensions: Axial lead similar to E package and surface mount similar to D-5B
- Operating and Storage Temperature: -65°C to +175°

MAX. RATINGS / ELECTRICAL CHARACTERISTICS All ratings are at $T_A = 25^\circ\text{C}$ unless otherwise specified.

Rating	Symbol	Condition	Max	Units
WORKING PEAK REVERSE VOLTAGE 1N5807 / US 1N5809 / US 1N5811 / US	V_{WM}		50 100 150	Volts
AVERAGE RECTIFIED FORWARD CURRENT	I_o	$T_L = 75^\circ\text{C}$	3.0	Amps
PEAK FORWARD SURGE CURRENT	I_{FSM}	$T_p = 8.3\text{ms}$	125	A(pk)
MAXIMUM REVERSE CURRENT	$I_R @ V_{RWM}$	$T_j = 25^\circ\text{C}$	5.0	μAmps
MAXIMUM REVERSE CURRENT	$I_R @ V_{RWM}$	$T_j = 150^\circ\text{C}$	525	μAmps
MAX. PEAK FORWARD VOLTAGE (PULSED) 300 μsec pulse, duty cycle < 2%	V_{FM}	$I_{FM} = 4.0\text{A}$ $I_{FM} = 6.0\text{A}$	0.875 0.925	Volts
MAXIMUM REVERSE RECOVERY TIME	T_{rr}	$I_F = I_{RM} = 0.5\text{A}$ $I_{REC} = 0.05\text{A}$	30	ns
FORWARD RECOVERY VOLTAGE	V_{FRM}	$I_F = 500\text{mA}$ $t_r = 8\text{ns}$	2.2	Volts
THERMAL RESISTANCE (Axial) 1N5807 thru 1N5811	$R_{\theta_{JL}}$	$L = .375$	22	$^\circ\text{C/W}$
THERMAL RESISTANCE (MELF) 1N5807US thru 1N5811US	$R_{\theta_{JC}}$	$L = 0$	6.5	$^\circ\text{C/W}$

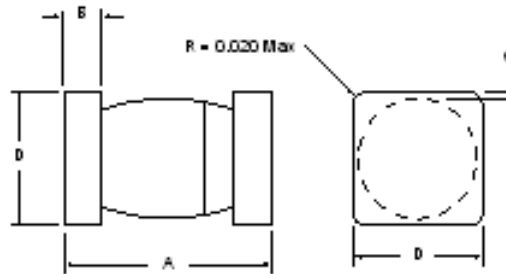
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MECHANICAL DIMENSIONS In Inches / (mm)



PACKAGE STYLE	DIMENSIONS - INCHES (MILLIMETERS)			
	ϕB	ϕD	G	L
304	.115/.142 2.92/3.61	.036/.042 .94/1.07	.130/.300 3.30/7.62	.90/1.30 22.9/33.0

MELF PACKAGE OUTLINES



Note: Cathode side of device is indicated by a dark band marked on body.

PACKAGE STYLE	DIMENSIONS - INCHES / MILLIMETERS			
	A	B	C	D
MELF-B	.200/.225 5.0/5.8	0.019/.028 .48/.72	.003 Min .076 Min	.137/.148 3.4/3.8

SENSITRON
SEMICONDUCTOR

SS5807 / US thru SS5811 / US

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