

**TECHNICAL DATA**  
**DATA SHEET 158, REV. F**

**Ultrafast Recovery Rectifier**

- Hermetic, non-cavity glass package
- Metallurgically bonded
- Operating and Storage Temperature: -65°C to +175°

SJ
SX
SV

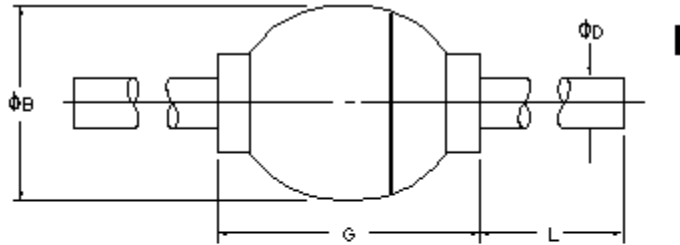
**MAX. RATINGS / ELECTRICAL CHARACTERISTICS** All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

Rating	Symbol	Condition	Max	Units
WORKING PEAK REVERSE VOLTAGE 1N5802, US 1N5804, US 1N5806, US	$V_{WM}$		50 100 150	Volts
AVERAGE RECTIFIED FORWARD CURRENT	$I_o$	$T_L = 75^\circ\text{C}$	2.5	Amps
PEAK FORWARD SURGE CURRENT	$I_{FSM}$	$T_p = 8.3\text{ms}$	35	A(pk)
MAXIMUM REVERSE CURRENT	$I_R @ V_{RWM}$	$T_j = 25^\circ\text{C}$	1.0	$\mu\text{Amps}$
MAXIMUM REVERSE CURRENT	$I_R @ V_{RWM}$	$T_j = 150^\circ\text{C}$	175	$\mu\text{Amps}$
MAX. PEAK FORWARD VOLTAGE (PULSED) 300 $\mu\text{sec}$ pulse, duty cycle < 2%	$V_{FM}$	$I_{FM} = 1.0\text{A}$ $I_{FM} = 2.5\text{A}$	0.875 0.975	Volts
MAXIMUM REVERSE RECOVERY TIME	$T_{rr}$	$I_F = I_{RM} = 0.5\text{A}$ $I_{REC} = 0.05\text{A}$	25	ns
FORWARD RECOVERY VOLTAGE	$V_{FRM}$	$I_F = 250\text{mA}$ $t_r = 12\text{ns}$	2.2	Volts
THERMAL RESISTANCE (Axial) 1N5802 thru 1N5806	$R_{\theta_{JL}}$	$L = .375$	36	$^\circ\text{C/W}$
THERMAL RESISTANCE (MELF) 1N5802US thru 1N5806US	$R_{\theta_{JC}}$	$L = 0$	13	$^\circ\text{C/W}$

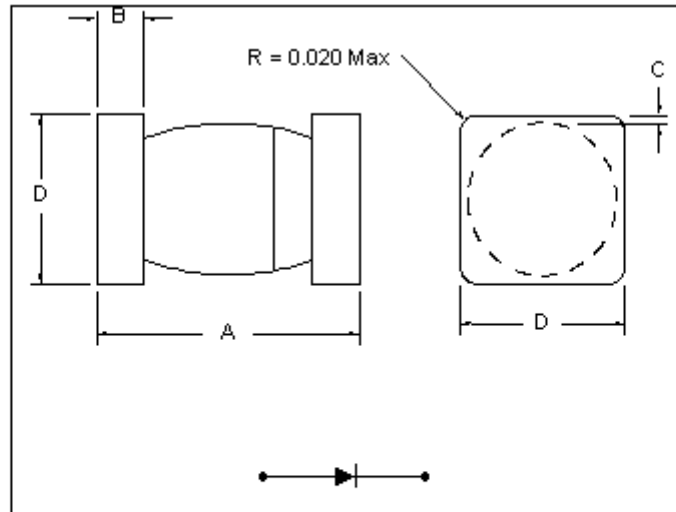
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MECHANICAL DIMENSIONS In Inches / (mm)

MECHANICAL DIMENSIONS In Inches / (mm), min./max.



PACKAGE	DIMENSIONS - INCHES / MILLIMETERS			
STYLE	$\phi B$	$\phi D$	G	L
106	.065/.085 1.65/2.16	.027/.032 .69/.81	.125/.250 3.18/6.35	.700/1.30 17.78/33.02



PACKAGE	DIMENSIONS - INCHES / MILLIMETERS			
STYLE	A	B	C	D
MELF-A	.168/.200 4.27/5.08	0.019/.028 .48/.71	.003 Min .08 Min	.091/.103 2.31/2.62

**Note:** The cathode side is marked with a dark colored band on one side of the diode body.

**SENSITRON**  
**SEMICONDUCTOR**

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