TECHNICAL DATA
DATA SHEET 4970, REV. D

Ultrafast Recovery Rectifier

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

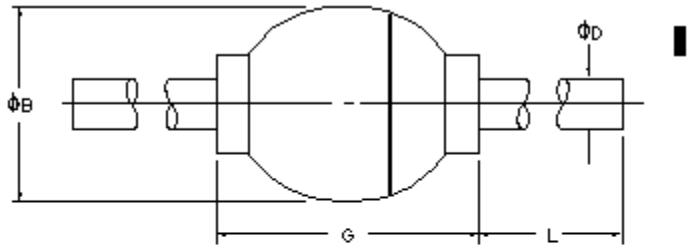
MAX. RATINGS / ELECTRICAL CHARACTERISTICS All ratings are at T_A = 25°C unless otherwise specified.

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 °C	2.5	Amps
PEAK FORWARD SURGE CURRENT	I_{FSM}	T_p=8.3ms	35	A(pk)
MAXIMUM REVERSE CURRENT	I_R @ V_{RWM}	T_j = 25 °C	1.0	µAmps
MAXIMUM REVERSE CURRENT	I_R @ V_{RWM}	T_j = 150 °C	175	µAmps
MAX. PEAK FORWARD VOLTAGE (PULSED) 300 µsec pulse, duty cycle < 2%	V_{FM}	I_{FM}=1.0A I_{FM}=2.5A	0.875 0.975	Volts
MAXIMUM REVERSE RECOVERY TIME	T_{rr}	I_F=I_{RM}=0.5A I_{REC}=0.05A	25	ns
FORWARD RECOVERY VOLTAGE	V_{FRM}	I_F=250mA t_r=12ns	2.2	Volts
THERMAL RESISTANCE (Axial) 1N5802 thru 1N5806	$R\theta_{JL}$	L=.375	36	°C/W
THERMAL RESISTANCE (MELF) 1N5802US thru 1N5806US	$R\theta_{JC}$	L=0	13	°C/W

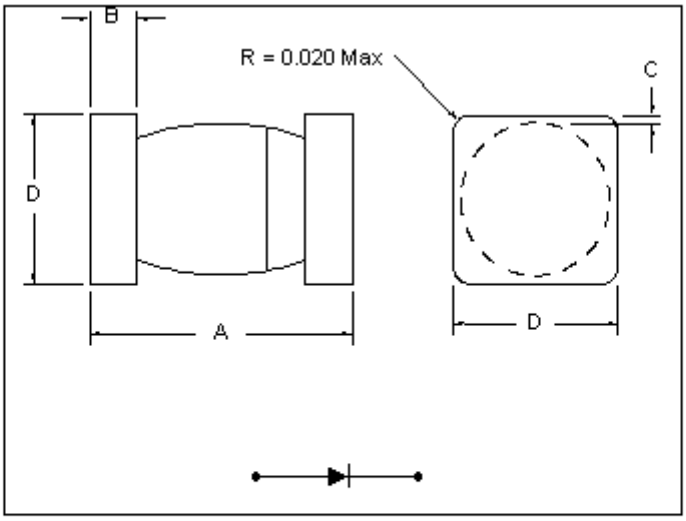
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MECHANICAL DIMENSIONS In Inches / (mm)

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



PACKAGE	DIMENSIONS - INCHES / MILLIMETERS			
STYLE	ΦB	ΦD	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.

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