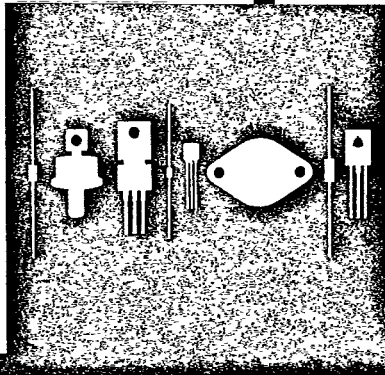


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145 Adams Avenue
Hauppauge, New York 11788



CS39-2

SILICON CONTROLLED RECTIFIER

2 AMPS
50 THRU 400 VOLTS

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR CS39-2 Series types are 2 Amp Silicon Controlled Rectifiers in a hermetically sealed metal package designed for control systems and sensing circuit applications.

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$)

	SYMBOL	CS39-2F	CS39-2A	CS39-2B	CS39-2D	UNIT
Peak Repetitive Reverse Voltage	VRRM	50	100	200	400	V
Peak Repetitive Off-State Voltage	VDRM	50	100	200	400	V
RMS On-State Current	$I_T(\text{RMS})$			2.0		A
Peak One-Cycle Surge	I_{TSM}			20		A
Peak Gate Current	I_{GM}			0.1		A
Average Gate Power Dissipation	$P_{\text{G(AV)}}$			0.03		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 TO +150			$^\circ\text{C}$
Thermal Resistance	θ_{JC}		20			$^\circ\text{C/W}$

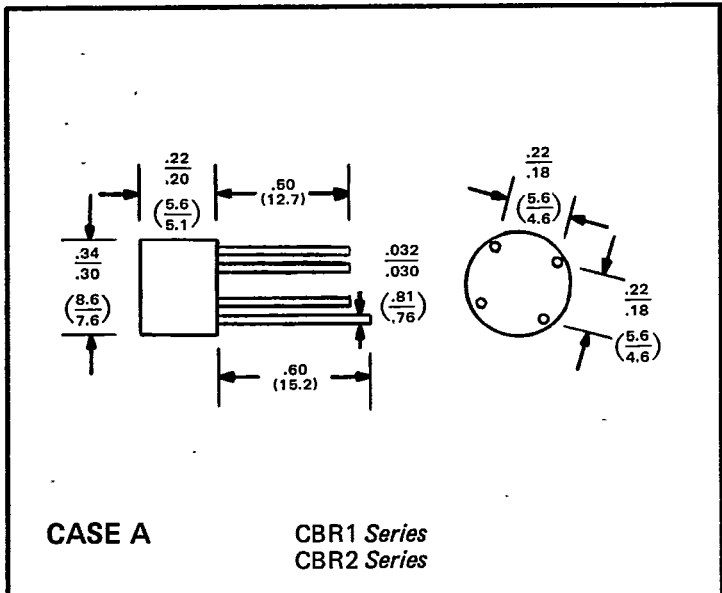
ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
I_{RRM}	$V_R = \text{Rated } V_{\text{RRM}}$			1.0	mA
I_{DRM}	$V_D = \text{Rated } V_{\text{DRM}}$			1.0	mA
V_{TM}	$I_T = 2.0\text{A}$			1.9	V
I_{GT}	$V_D = 7.0\text{V}, R_L = 100\Omega$			0.2	mA
V_{GT}	$V_D = 7.0\text{V}, R_L = 100\Omega$			2.0	V
I_{H}	$V_D = 7.0\text{V}, R_{\text{GK}} = 1.0\text{K}\Omega$			5.0	mA
dv/dt	Exponential Rise to $.67 \times V_{\text{DRM}}$, $T_C = 100^\circ\text{C}$		100		V/ μs

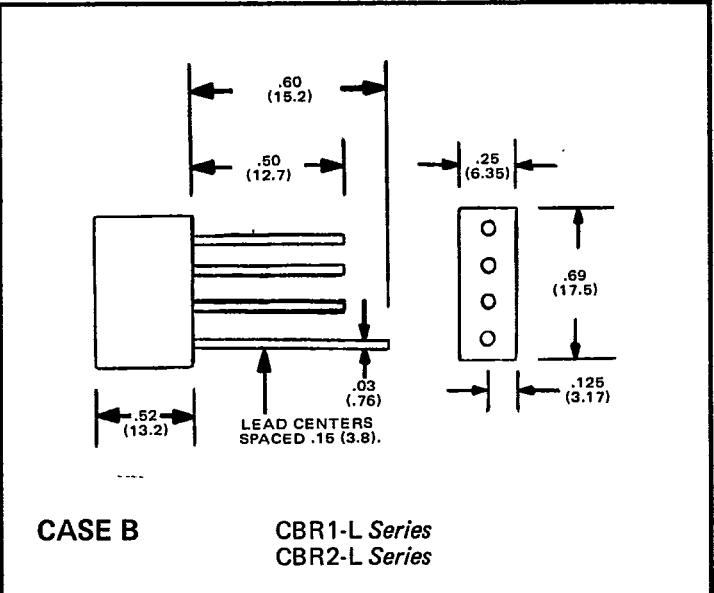


CASE OUTLINE DRAWINGS

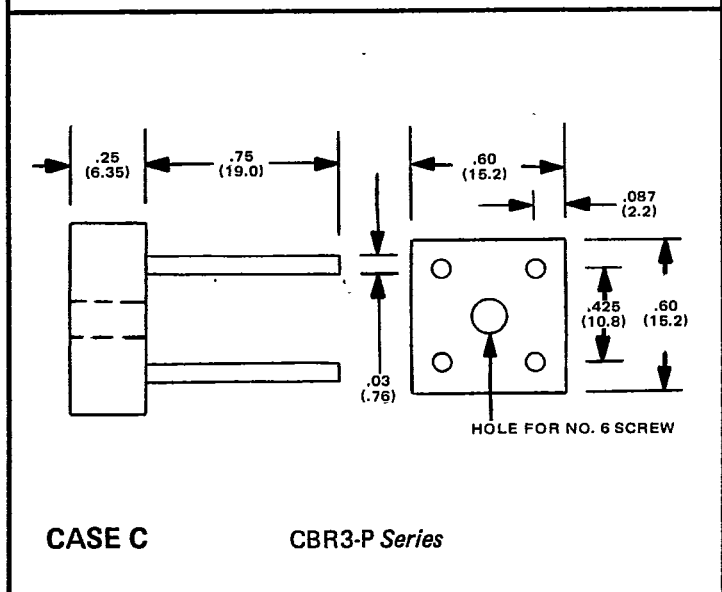
D



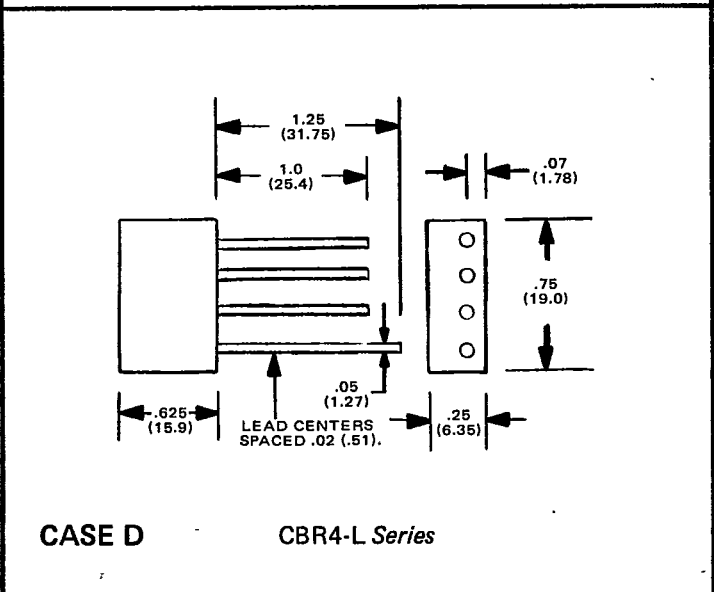
CASE A CBR1 Series
CBR2 Series



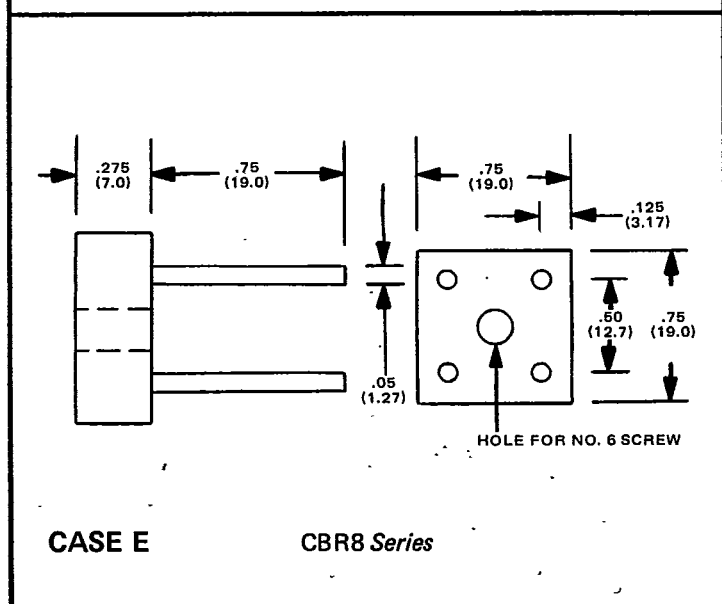
CASE B CBR1-L Series
CBR2-L Series



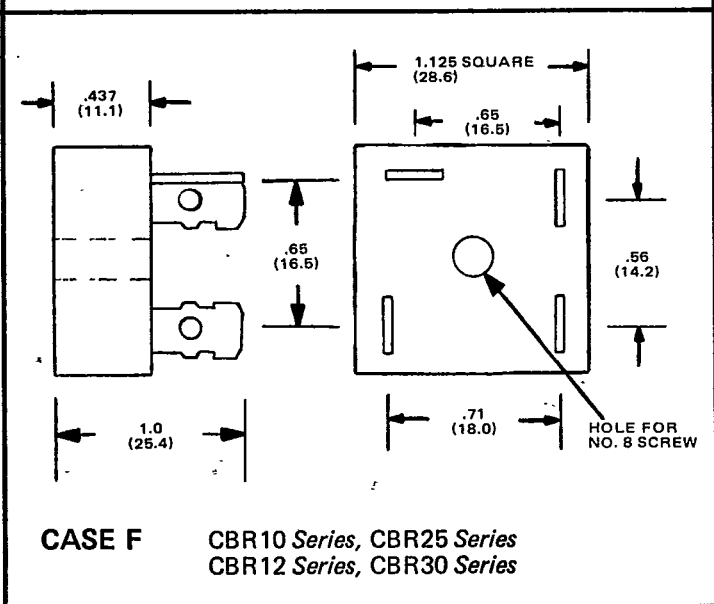
CASE C CBR3-P Series



CASE D CBR4-L Series



CASE E CBR8 Series



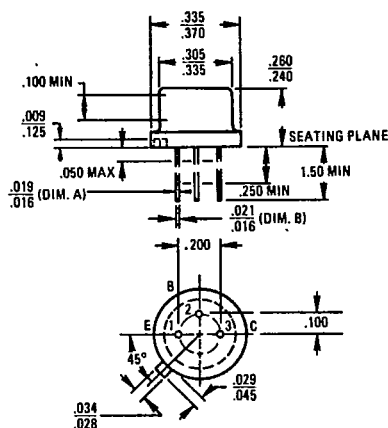
CASE F CBR10 Series, CBR25 Series
CBR12 Series, CBR30 Series

All Dimensions in Inches (Millimeters)
Drawings Not To Scale

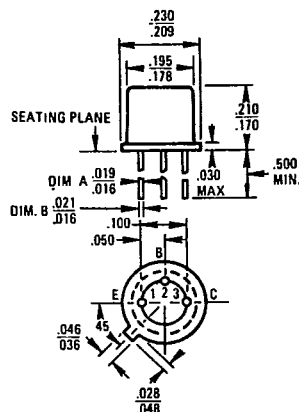
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MECHANICAL OUTLINE DRAWINGS

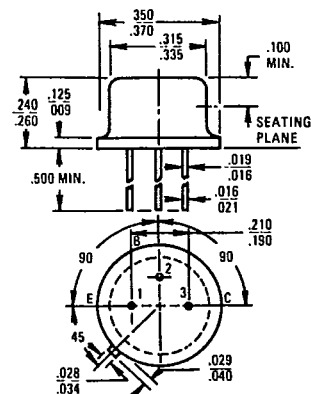
TO-5



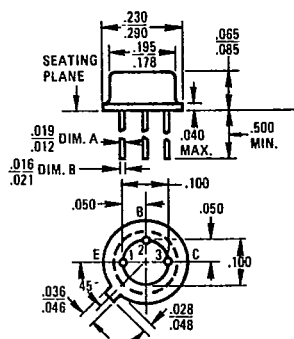
TO-18



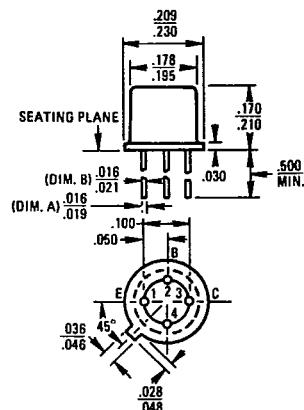
TO-39



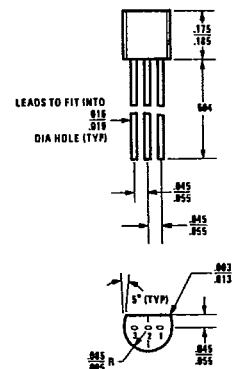
TO-46



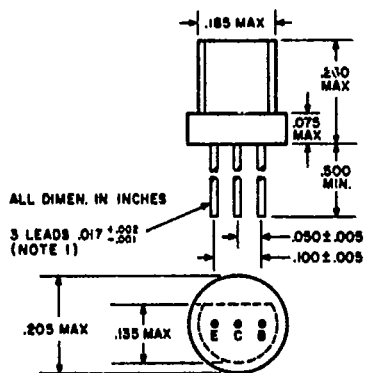
TO-72



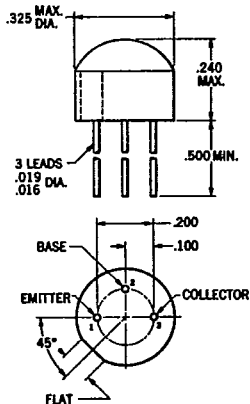
TO-92



TO-98



TO-105



TO-106

