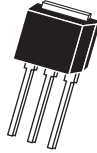


C106B2
C106D2
C106M2

**SENSITIVE GATE
SILICON CONTROLLED RECTIFIER
4 AMP, 200 THRU 600 VOLTS**



TO-202-2 THYRISTOR CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR C106B2 Series types are 4.0A, PNP sensitive gate triggering silicon controlled rectifiers with voltages ranging from 200V to 600V. These devices are designed for applications such as temperature, light and speed control, and remote warning and triggering applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	C106B2	C106D2	C106M2	UNITS
Peak Repetitive Off-State Voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	200	400	600	V
RMS On-State Current ($T_C=85^{\circ}\text{C}$)	$I_{\text{T(RMS)}}$		4.0		A
Peak One Cycle Surge Current, $t=8.3\text{ms}$	I_{TSM}		20		A
I^2t Value for Fusing	I^2t		1.65		A^2s
Peak Gate Power Dissipation ($T_C=80^{\circ}\text{C}$)	P_{GM}		0.5		W
Average Gate Power Dissipation ($T_C=80^{\circ}\text{C}$)	$P_{\text{G(AV)}}$		0.1		W
Peak Forward Gate Current ($T_C=80^{\circ}\text{C}$)	I_{GFM}		0.2		A
Operating Junction Temperature	T_{J}		-40 to +110		$^{\circ}\text{C}$
Storage Temperature	T_{stg}		-40 to +150		$^{\circ}\text{C}$
Thermal Resistance	Θ_{JC}		7.5		$^{\circ}\text{C/W}$
Thermal Resistance	Θ_{JA}		80		$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1.0\text{K}\Omega$			10	μA
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1.0\text{K}\Omega, T_{\text{J}}=110^{\circ}\text{C}$			100	μA
V_{TM}	$I_{\text{T}}=4.0\text{A}$			2.2	V
I_{GT}	$V_{\text{D}}=6.0\text{V}, R_{\text{L}}=100\Omega$			200	μA
I_{GT}	$V_{\text{D}}=6.0\text{V}, R_{\text{L}}=100\Omega, T_{\text{J}}=-40^{\circ}\text{C}$			500	μA
V_{GT}	$V_{\text{D}}=6.0\text{V}, R_{\text{L}}=100\Omega$	0.4		0.8	V
V_{GT}	$V_{\text{D}}=6.0\text{V}, R_{\text{L}}=100\Omega, T_{\text{J}}=-40^{\circ}\text{C}$	0.5		1.0	V
I_{H}	$V_{\text{D}}=12\text{V}$			3.0	mA
I_{H}	$V_{\text{D}}=12\text{V}, T_{\text{J}}=-40^{\circ}\text{C}$			6.0	mA
I_{H}	$V_{\text{D}}=12\text{V}, T_{\text{J}}=110^{\circ}\text{C}$			2.0	mA
I_{L}	$V_{\text{D}}=12\text{V}$			5.0	mA
I_{L}	$V_{\text{D}}=12\text{V}, T_{\text{J}}=-40^{\circ}\text{C}$			7.0	mA
dv/dt	$V_{\text{D}}=\text{Rated } V_{\text{DRM}}, R_{\text{GK}}=1.0\text{K}\Omega, T_{\text{J}}=110^{\circ}\text{C}$		8.0		$\text{V}/\mu\text{s}$

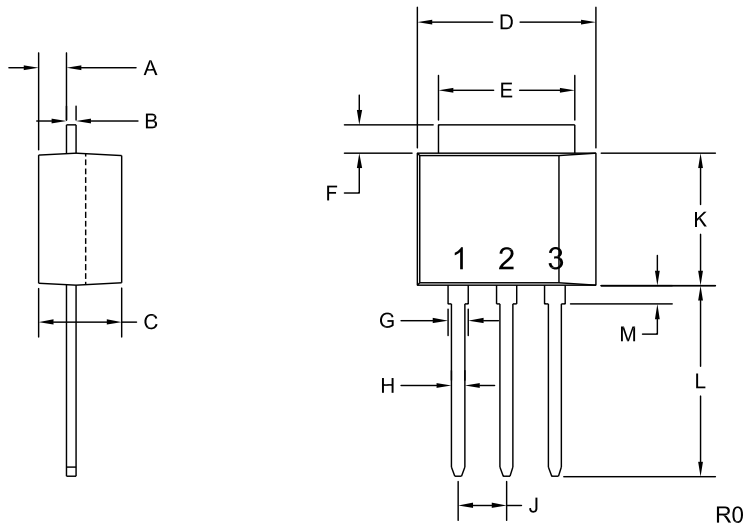
R0 (15-February 2011)

C106B2
C106D2
C106M2

**SENSITIVE GATE
SILICON CONTROLLED RECTIFIER
4 AMP, 200 THRU 600 VOLTS**



TO-202-2 THYRISTOR CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
 - 2) Anode
 - 3) Gate
- Tab is common to pin 2

MARKING:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.057	0.061	1.45	1.55
B	0.019	0.021	0.49	0.52
C	0.175	0.180	4.44	4.56
D	0.376	0.388	9.55	9.85
E	0.118	0.134	3.00	3.40
F (DIA)	0.124	0.126	3.15	3.20
G	0.035	0.043	0.90	1.10
H	0.023	0.028	0.59	0.71
J	0.098	0.102	2.49	2.59
K	0.459	0.559	11.66	14.21
L	0.280	0.301	7.12	7.65
M	0.406	0.425	10.30	10.80
N	0.024	0.059	0.60	1.50

TO-202 Thyristor (REV: R0)

R0 (15-February 2011)