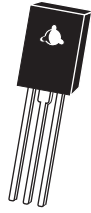


C106B
C106D
C106M
4.0A SENSITIVE GATE
SILICON CONTROLLED RECTIFIER
200 THRU 600 VOLTS



TO-126 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR C106B Series 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, remote warning and triggering applications.

MARKING CODE: FULL PART NUMBER

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

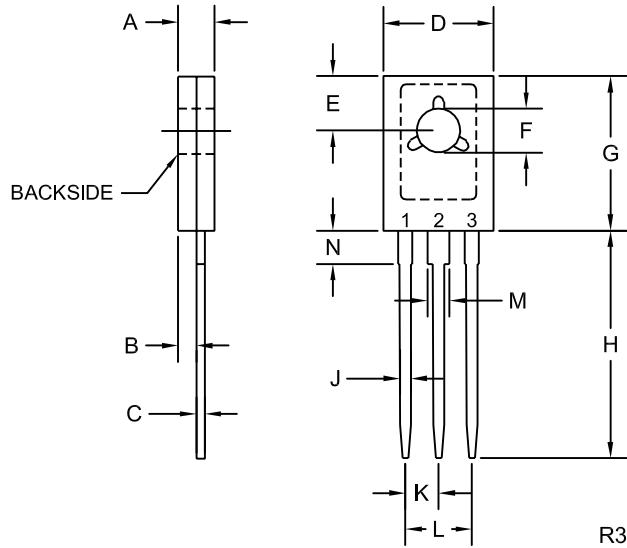
	SYMBOL	C106B	C106D	C106M	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	V
RMS On-State Current ($T_C=80^\circ\text{C}$)	$I_{T(RMS)}$		4.0		A
Peak Non-Repetitive Surge Current ($T_J=110^\circ\text{C}$)	I_{TSM}		20		A
I^2t Value for Fusing ($t=8.3\text{ms}$)	I^2t		1.65		A^2s
Peak Gate Power ($T_C=80^\circ\text{C}$)	P_{GM}		0.5		W
Average Gate Power ($T_C=80^\circ\text{C}$)	$P_{G(AV)}$		0.1		W
Peak Forward Gate Current ($T_C=80^\circ\text{C}$)	I_{GFM}		0.2		A
Storage Temperature	T_{stg}		-40 to +150		$^\circ\text{C}$
Junction Temperature	T_J		-40 to +110		$^\circ\text{C}$
Thermal Resistance	θ_{JC}		3.0		$^\circ\text{C/W}$
Thermal Resistance	θ_{JA}		75		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega$			10	μA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega, T_J=110^\circ\text{C}$			100	μA
V_{TM}	$I_{FM}=4.0\text{A}$			2.2	V
I_{GT}	$V_{AK}=6.0\text{V}, R_L=100\Omega$			200	μA
I_{GT}	$V_{AK}=6.0\text{V}, R_L=100\Omega, T_J=-40^\circ\text{C}$			500	μA
V_{GT}	$V_{AK}=6.0\text{V}, R_L=100\Omega$	0.4		0.8	V
V_{GT}	$V_{AK}=6.0\text{V}, R_L=100\Omega, T_J=-40^\circ\text{C}$	0.5		1.0	V
I_H	$V_D=12\text{V}$			3.0	mA
I_H	$V_D=12\text{V}, T_J=-40^\circ\text{C}$			6.0	mA
I_H	$V_D=12\text{V}, T_J=110^\circ\text{C}$			2.0	mA
I_L	$V_D=12\text{V}$			5.0	mA
I_L	$V_D=12\text{V}, T_J=-40^\circ\text{C}$			7.0	mA
dv/dt	$V_D = \text{Rated } V_{DRM}, R_{GK}=1\text{K}\Omega, T_J=110^\circ\text{C}$		8.0		V/ μs

R0 (27-April 2004)

TO-126 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) CATHODE
- 2) ANODE
- 3) GATE

MARKING CODE:
FULL PART NUMBER

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.094	0.110	2.40	2.80
B	0.050		1.27	
C	0.015	0.030	0.38	0.75
D	0.291	0.335	7.40	8.50
E	0.148		3.75	
F	0.118	0.134	3.00	3.40
G	0.413	0.472	10.50	12.00
H	0.618		15.70	
J	0.024	0.035	0.62	0.90
K	0.089		2.25	
L	0.177		4.50	
M	0.045	0.055	1.14	1.40
N	0.083		2.10	

TO-126 (REV:R3)