

CEN250B1
CEN250D1
CEN250M1

4.0 AMP SCR
200 THRU 600 VOLT



TO-202 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CEN250B1, CEN250D1, and CEN250M1 are epoxy molded silicon controlled rectifiers designed for sensing circuit applications and control systems.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=75^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	CEN250B1	CEN250D1	CEN250M1	UNITS
Peak Repetitive Off-State Voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	200	400	600	V
RMS On-State Current	$I_{\text{T(RMS)}}$		4.0		A
Peak One Cycle Surge ($t=8.3\text{ms}$)	I_{TSM}		20		A
Peak Gate Power	P_{GM}		500		mW
Average Gate Power Dissipation	$P_{\text{G(AV)}}$		100		mW
Peak Gate Current	I_{GM}		200		mA
Operating Junction Temperature	T_{J}		-40 to +125		$^{\circ}\text{C}$
Storage Temperature	T_{stg}		-40 to +150		$^{\circ}\text{C}$
Thermal Resistance	θ_{JA}		80		$^{\circ}\text{C/W}$
Thermal Resistance	θ_{JC}		7.5		$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	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_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		200	μA
I_{H}	$I_{\text{T}}=50\text{mA}, R_{\text{GK}}=1.0\text{K}\Omega$		3.0	mA
V_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		0.8	V
V_{TM}	$I_{\text{TM}}=4.0\text{A}$		2.2	V

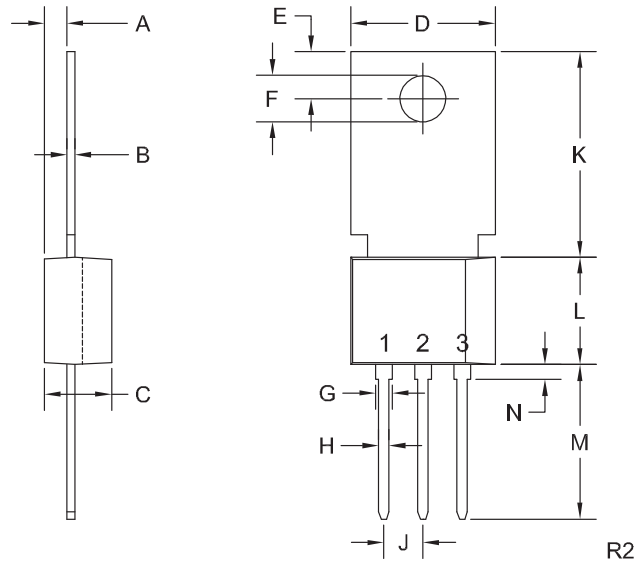
R0 (13-May 2013)

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CEN250D
CEN250M

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TO-202 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	0.055	0.071	1.40	1.80
B	0.016	0.024	0.40	0.60
C	0.173	0.181	4.40	4.60
D	0.374	0.413	9.50	10.5
E	0.118	0.154	3.00	3.90
F (DIA)	0.124	0.150	3.15	3.80
G	0.035	0.055	0.90	1.40
H	0.023	0.031	0.59	0.80
J	0.094	0.106	2.39	2.69
K	0.459	0.559	11.66	14.21
L	0.280	0.346	7.12	8.80
M	0.406	0.531	10.3	13.5
N	0.024	0.059	0.60	1.50

TO-202 (REV: R2)

R0 (13-May 2013)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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