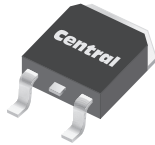


CQD-4M  
CQD-4N

SURFACE MOUNT SILICON  
TRIACS  
4.0 AMP, 600 THRU 800 VOLT



DPAK CASE



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CQD-4M and CQD-4N are epoxy molded silicon TRIACs designed for full wave AC control applications featuring gate triggering in all four quadrants.

**MARKING: FULL PART NUMBER**

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

	<b>SYMBOL</b>	<b>CQD-4M</b>	<b>CQD-4N</b>	<b>UNITS</b>
Peak Repetitive Off-State Voltage	$V_{DRM}$	600	800	V
RMS On-State Current ( $T_C=80^\circ\text{C}$ )	$I_T(\text{RMS})$		4.0	A
Peak One Cycle Surge, $t=10\text{ms}$	$I_{TSM}$		40	A
$I^2t$ Value for Fusing, $t=10\text{ms}$	$I^2t$		2.4	$\text{A}^2\text{s}$
Peak Gate Power, $t_p=10\mu\text{s}$	$P_{GM}$		3.0	W
Average Gate Power Dissipation	$P_{G(AV)}$		0.2	W
Peak Gate Current, $t_p=10\mu\text{s}$	$I_{GM}$		1.2	A
Operating Junction Temperature	$T_J$		-40 to +125	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-40 to +150	$^\circ\text{C}$

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

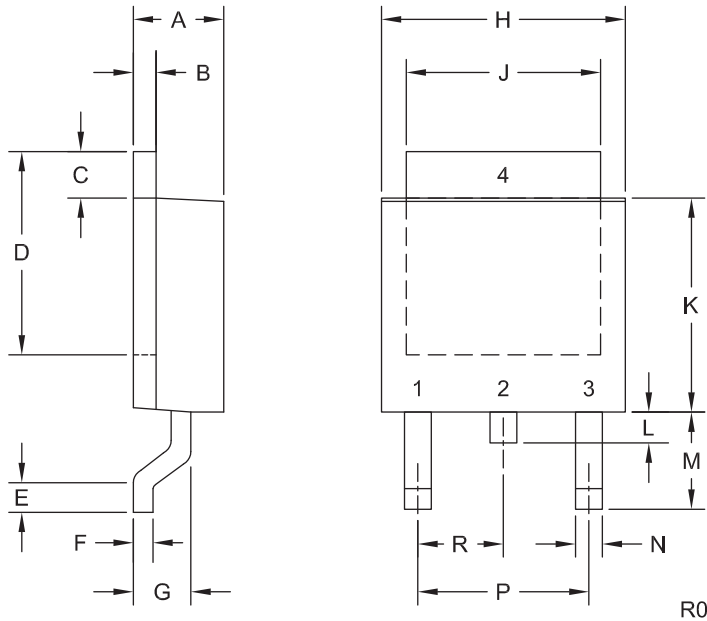
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_{DRM}$	Rated $V_{DRM}$ , $R_{GK}=1\text{K}\Omega$			10	$\mu\text{A}$
$I_{DRM}$	Rated $V_{DRM}$ , $R_{GK}=1\text{K}\Omega$ , $T_C=125^\circ\text{C}$			200	$\mu\text{A}$
$I_{GT}$	$V_D=12\text{V}$ , QUAD I, II, III		2.5	5.0	mA
$I_{GT}$	$V_D=12\text{V}$ , QUAD IV		5.4	9.0	mA
$I_H$	$R_{GK}=1\text{K}\Omega$		1.6	5.0	mA
$V_{GT}$	$V_D=12\text{V}$ , QUAD I, II, III, IV		0.95	1.75	V
$V_{TM}$	$I_{TM}=6.0\text{A}$ , $t_p=380\mu\text{s}$		1.25	1.75	V
$dv/dt$	$V_D=2/3 V_{DRM}$ , $T_C=125^\circ\text{C}$	11			$\text{V}/\mu\text{s}$

CQD-4M  
CQD-4N

SURFACE MOUNT SILICON  
TRIACS  
4.0 AMP, 600 THRU 800 VOLT



DPAK CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) MT1
- 2) MT2
- 3) Gate
- 4) MT2

MARKING:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.083	0.108	2.10	2.75
B	0.016	0.032	0.40	0.81
C	0.035	0.063	0.89	1.60
D	0.203	0.228	5.15	5.79
E	0.020	-	0.51	-
F	0.018	0.024	0.45	0.60
G	0.051	0.071	1.30	1.80
H	0.248	0.268	6.30	6.81
J	0.197	0.217	5.00	5.50
K	0.209	0.245	5.30	6.22
L	0.025	0.040	0.64	1.02
M	0.090	0.115	2.30	2.91
N	0.012	0.045	0.30	1.14
P	0.180		4.60	
R	0.090		2.30	

DPAK (REV: R0)

R2 (21-January 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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).

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### CONTACT US

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