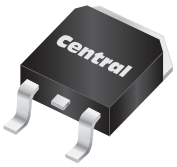
CQDD-16M
CQDD-16N

SURFACE MOUNT
16 AMP SILICON TRIACS
600 THRU 800 VOLT



D²PAK CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:
The CENTRAL SEMICONDUCTOR CQDD-16M series type is an Epoxy Molded Silicon Triac designed for full wave AC control applications featuring gate triggering in all four (4) quadrants.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C unless otherwise noted)	**SYMBOL**	**CQDD-16M**	**CQDD-16N**	**UNITS**
Peak Repetitive Off-State Voltage	V_{DRM}	600	800	V
RMS On-State Current (T_C=90°C)	$I_{T(RMS)}$	16		A
Peak One Cycle Surge, t=8.3ms	I_{TSM}	110		A
I^2t Value for Fusing, t=8.3ms	I^2t	50		A^2s
Peak Gate Power, tp=10µs	P_{GM}	40		W
Average Gate Power Dissipation	$P_{G(AV)}$	1.0		W
Peak Gate Current, tp=10µs	I_{GM}	6.0		A
Peak Gate Voltage, tp=10µs	V_{GM}	16		V
Critical Rate of Rise of On-State Current Repetitive, f=60Hz	di/dt	10		A/µs
Operating Junction Temperature	T_J	-40 to +125		°C
Storage Temperature	T_{stg}	-40 to +150		°C
Thermal Resistance	Θ_{JA}	60		°C/W
Thermal Resistance	Θ_{JC}	2.3		°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_{DRM}	Rated V_{DRM}			10	µA
I_{DRM}	Rated V_{DRM}, T_C=125°C			2.0	mA
I_{GT}	V_D=12V, R_L=10Ω, QUAD I, II, III		10.9	25	mA
I_{GT}	V_D=12V, R_L=10Ω, QUAD IV		55.2	75	mA
I_H	I_T=100mA		9.8	25	mA
V_{GT}	V_D=12V, R_L=10Ω, QUAD I, II, III		0.97	1.50	V
V_{GT}	V_D=12V, R_L=10Ω, QUAD IV		1.51	2.50	V
V_{TM}	I_{TM}=22.5A, tp=380µs		1.35	1.60	V
dv/dt	V_D=$^2/_3$ V_{DRM}, R_{GK}=∞, T_C=125°C	10			V/µs

CQDD-16M
CQDD-16N

SURFACE MOUNT
16 AMP SILICON TRIACS
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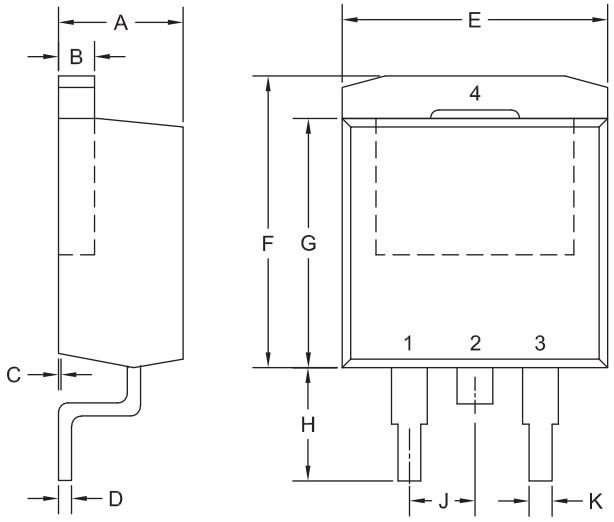
D^{2}PAK CASE - MECHANICAL OUTLINE



R3

LEAD CODE:
1) MT1
2) MT2
3) Gate
4) MT2

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.163	0.189	4.14	4.80
B	0.045	0.055	1.14	1.40
C	0.000	0.010	0.00	0.25
D	0.012	0.028	0.30	0.70
E	0.386	0.415	9.80	10.55
F	0.378	0.417	9.60	10.60
G	0.335	0.358	8.50	9.10
H	0.188	0.236	4.78	6.00
J	0.093	0.108	2.35	2.75
K	0.030	0.035	0.75	0.90

D2PAK (REV: R3)

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

Corporate Headquarters & Customer Support Team

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Worldwide Distributors:
www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01108
Notification Date:	3/21/19
Last Buy Date:	9/21/19
Last Shipment Date	3/21/20

Summary:All Thyristors manufactured in the DPAK and D2PAK packages are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

Central Part Number	Replacement
CQD-4M BK	N/A, Stock Only
CQD-4M TR13	N/A, Stock Only
CQDD-16M BK	N/A, Stock Only
CQDD-16M TR13	N/A, Stock Only
CQDD-25M BK	N/A, Stock Only
CQDD-25M TR13	N/A, Stock Only
CSDD-12N BK	N/A, Stock Only
CSDD-12N TR13	N/A, Stock Only
CSDD-16M BK	N/A, Stock Only
CSDD-16M TR13	N/A, Stock Only
CSDD-25M BK	N/A, Stock Only
CSDD-25M TR13	N/A, Stock Only

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.