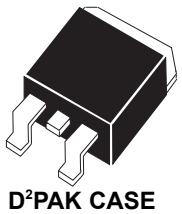
CQDD-16M
CQDD-16N

16 AMP TRIAC
600 THRU 800 VOLTS



D²PAK CASE

Central™
Semiconductor Corp.

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 CODE: 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
Storage Temperature	T_{stg}	-40 to +150		°C
Junction Temperature	T_J	-40 to +125		°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

R1 (24-September 2004)

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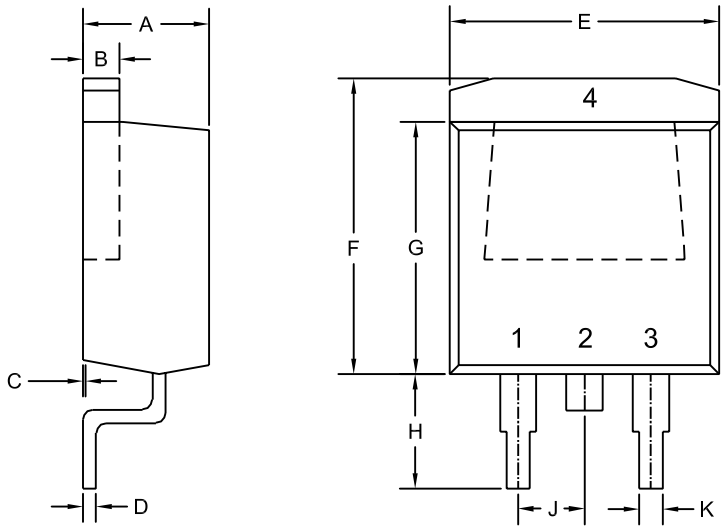
Semiconductor Corp.

CQDD-16M
CQDD-16N

16 AMP TRIAC
600 THRU 800 VOLTS

D^2PAK CASE - MECHANICAL OUTLINE



R2

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

MARKING CODE:
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	0.409	9.80	10.40
F	0.378	0.417	9.60	10.60
G	0.335	0.358	8.50	9.10
H	0.197	0.236	5.00	6.00
J	0.093	0.108	2.35	2.75
K	0.030	0.035	0.75	0.90

D2PAK (REV: R2)

R1 (24-September 2004)