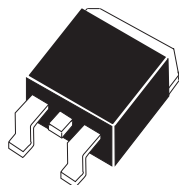


CSDD-16M
CSDD-16N

SILICON CONTROLLED RECTIFIER
16 AMP, 600 THRU 800 VOLTS



D²PAK CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSDD-16M series type is an Epoxy Molded Silicon Controlled Rectifier designed for sensing circuit applications and control systems.

MARKING CODE: FULL PART NUMBER

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

	SYMBOL	CSDD -16M	CSDD -16N	UNITS
Peak Repetitive Off-State Voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	600	800	V
RMS On-State Current ($T_C=90^{\circ}\text{C}$)	$I_{\text{T(RMS)}}$	16		A
Peak One Cycle Surge ($t=10\text{ms}$)	I_{TSM}	160		A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t	128		A ² s
Peak Gate Power ($t_p=10\mu\text{s}$)	P_{GM}	40		W
Average Gate Power Dissipation	$P_{\text{G (AV)}}$	1.0		W
Peak Forward Gate Current ($t_p=10\mu\text{s}$)	I_{FGM}	4.0		A
Peak Forward Gate Voltage ($t_p=10\mu\text{s}$)	V_{FGM}	16		V
Peak Reverse Gate Voltage ($t_p=10\mu\text{s}$)	V_{RGM}	5.0		V
Critical Rate of Rise of On-State Current	di/dt	100		A/ μs
Storage Temperature	T_{stg}	-40 to +150		$^{\circ}\text{C}$
Junction Temperature	T_{J}	-40 to +125		$^{\circ}\text{C}$
Thermal Resistance	θ_{JA}	60		$^{\circ}\text{C/W}$
Thermal Resistance	θ_{JC}	2.0		$^{\circ}\text{C/W}$

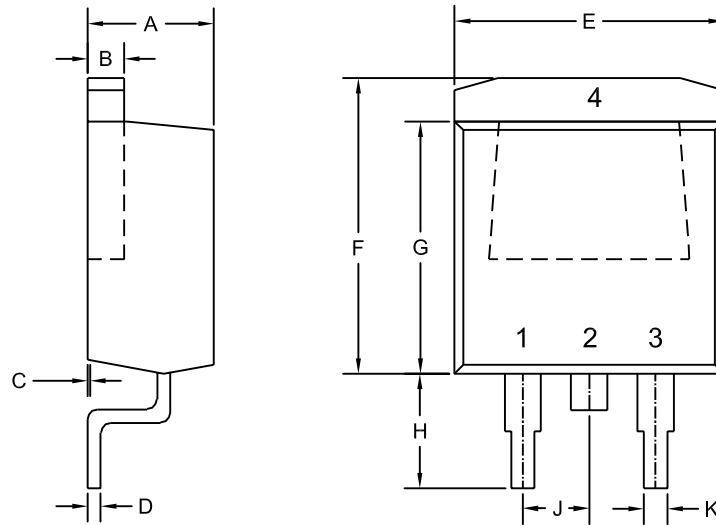
ELECTRICAL CHARACTERISTICS: ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}$			10	μA
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, T_C=125^{\circ}\text{C}$			2.0	mA
I_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		3.4	15	mA
I_{H}	$I_{\text{T}}=100\text{mA}$		8.8	20	mA
V_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		0.64	1.50	V
V_{TM}	$I_{\text{TM}}=32\text{A}, t_p=380\mu\text{s}$		1.40	1.60	V
dv/dt	$V_{\text{D}}=2/3 V_{\text{DRM}}, T_C=125^{\circ}\text{C}$	500			V/ μs

R0 (15-June 2004)

**SILICON CONTROLLED RECTIFIER
16 AMP, 600 THRU 800 VOLTS**

D²PAK CASE - MECHANICAL OUTLINE



R2

LEAD CODE:

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

MARKING CODE:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	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)

R0 (15-June 2004)