

CSD-4M  
CSD-4N

**SURFACE MOUNT  
SILICON CONTROLLED RECTIFIERS  
4.0 AMP, 600 THRU 800 VOLT**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CSD-4M and CSD-4N are epoxy molded SCRs designed for sensing circuit and control system applications.



**DPAK CASE**

**MARKING: FULL PART NUMBER**

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

	<b>SYMBOL</b>	<b>CSD-4M</b>	<b>CSD-4N</b>	<b>UNITS</b>
Peak Repetitive Off-State Voltage	$V_{DRM}, V_{RRM}$	600	800	V
RMS On-State Current ( $T_C=85^\circ\text{C}$ )	$I_T(\text{RMS})$	4.0		A
Peak One Cycle Surge Current, $t=10\text{ms}$	$I_{TSM}$	30		A
$I^2t$ Value for Fusing, $t=10\text{ms}$	$I^2t$	4.5		$\text{A}^2\text{s}$
Peak Gate Power, $t_p=20\mu\text{s}$	$P_{GM}$	3.0		W
Average Gate Power Dissipation	$P_{G(AV)}$	0.2		W
Peak Gate Current, $t_p=20\mu\text{s}$	$I_{GM}$	1.2		A
Critical Rate of Rise of On-State Current	$di/dt$	50		$\text{A}/\mu\text{s}$
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)

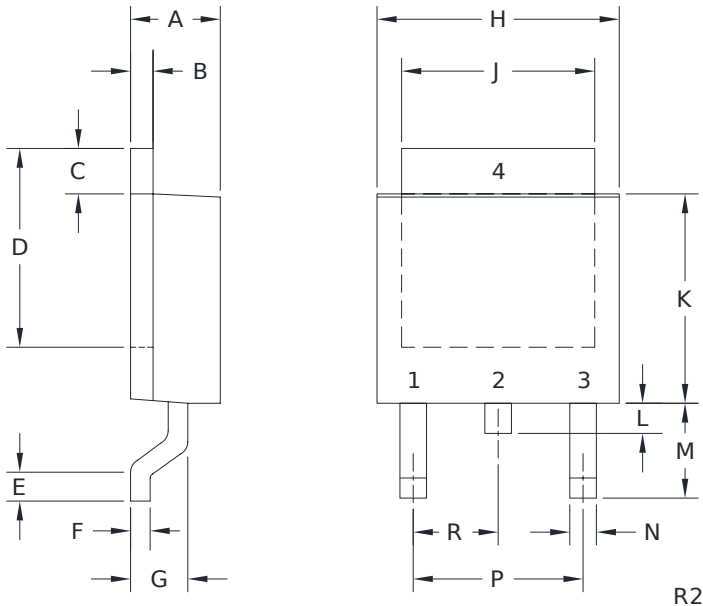
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega$			10	$\mu\text{A}$
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$			200	$\mu\text{A}$
$I_{GT}$	$V_D=12\text{V}, R_L=10\Omega$	20	38	200	$\mu\text{A}$
$I_H$	$I_T=50\text{mA}, R_{GK}=1\text{K}\Omega$		0.25	2.0	$\text{mA}$
$V_{GT}$	$V_D=12\text{V}, R_L=10\Omega$		0.55	0.8	V
$V_{TM}$	$I_{TM}=8.0\text{A}, t_p=380\mu\text{s}$		1.6	1.8	V
$dv/dt$	$V_D=2/3 V_{DRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$	10			$\text{V}/\mu\text{s}$

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CSD-4N



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**DPAK CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) Cathode
- 2) Anode
- 3) Gate
- 4) Anode

**MARKING:  
FULL PART NUMBER**

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.083	0.108	2.10	2.75
B	0.016	0.035	0.40	0.89
C	0.035	0.063	0.89	1.60
D	0.203	0.228	5.15	5.79
E	0.020	-	0.51	-
F	0.016	0.024	0.40	0.60
G	0.061		1.55	
H	0.248	0.268	6.30	6.81
J	0.195	0.217	4.95	5.50
K	0.209	0.245	5.30	6.22
L	0.033		0.83	
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:R2)

R3 (23-August 2023)

## 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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