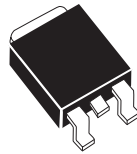


CSD-8M  
CSD-8N

8.0 AMP SCR  
600 THRU 800 VOLTS



DPAK THYRISTOR CASE

# Central<sup>TM</sup>

Semiconductor Corp.

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSD-8M 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)

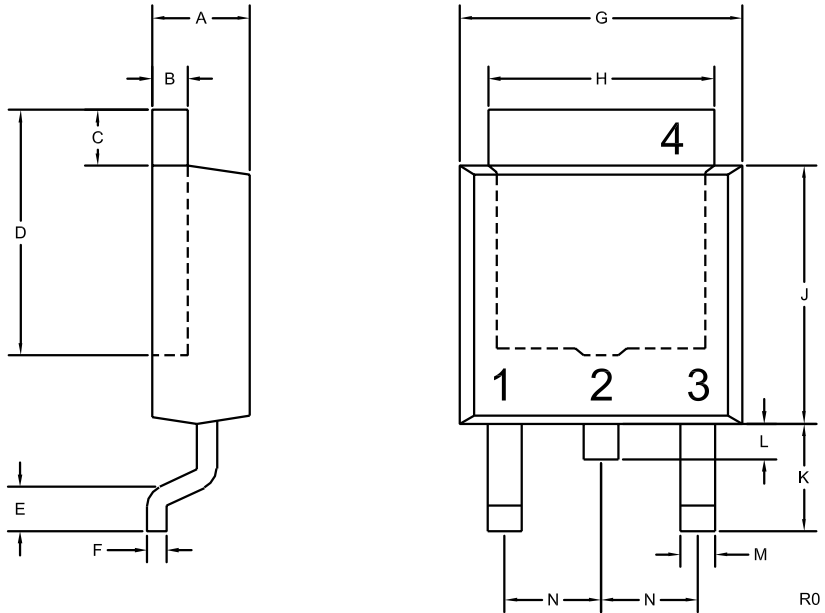
	SYMBOL	CSD -8M	CSD -8N	UNITS
Peak Repetitive Off-State Voltage	$V_{DRM}, V_{RRM}$	600	800	V
RMS On-State Current ( $T_C=90^\circ\text{C}$ )	$I_T(\text{RMS})$		8.0	A
Peak One Cycle Surge ( $t=10\text{ms}$ )	$I_{TSM}$		80	A
$I^2t$ Value for Fusing ( $t=10\text{ms}$ )	$I^2t$		32	$\text{A}^2\text{s}$
Peak Gate Power ( $t_p=10\mu\text{s}$ )	$P_{GM}$		40	W
Average Gate Power Dissipation	$P_{G(AV)}$		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	$di/dt$		50	$\text{A}/\mu\text{s}$
Storage Temperature	$T_{stg}$	-40 to +150		$^\circ\text{C}$
Junction Temperature	$T_J$	-40 to +125		$^\circ\text{C}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}$			10	$\mu\text{A}$
$I_{DRM}, I_{RRM}$	Rated $V_{DRM}, V_{RRM}, T_C=125^\circ\text{C}$			2.0	mA
$I_{GT}$	$V_D=12\text{V}, R_L=10\Omega$		3.0	15	mA
$I_H$	$I_T=100\text{mA}$		7.3	20	mA
$V_{GT}$	$V_D=12\text{V}, R_L=10\Omega$		0.9	1.5	V
$V_{TM}$	$I_{TM}=16\text{A}, t_p=380\mu\text{s}$		1.3	1.8	V
$dv/dt$	$V_D=2/3 V_{DRM}, T_C=125^\circ\text{C}$	200			$\text{V}/\mu\text{s}$

R0 (20-May 2004)

**DPAK THYRISTOR CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING CODE:**

**FULL PART NUMBER**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.086	0.094	2.18	2.39
B	0.018	0.032	0.46	0.81
C	0.035	0.050	0.89	1.27
D	0.205	0.228	5.21	5.79
E	0.047	0.055	1.20	1.40
F	0.018	0.024	0.45	0.60
G	0.250	0.268	6.35	6.81
H	0.205	0.215	5.20	5.46
J	0.235	0.245	5.97	6.22
K	0.100	0.108	2.55	2.74
L	0.025	0.040	0.64	1.02
M	0.025	0.035	0.64	0.89
N	0.090		2.28	

DPAK THYRISTOR (REV: R0)

R0 (20-May 2004)