

CSD-8M
CSD-8N

**SURFACE MOUNT
SILICON CONTROLLED RECTIFIER
8 AMP, 600 THRU 800 VOLTS**



DPAK THYRISTOR CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSD-8M series type is an Epoxy Molded Silicon Controlled Rectifier designed for sensing circuit applications and control systems.

MARKING: 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 ($T_C=90^\circ\text{C}$)	$I_{T(RMS)}$	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		A^2s
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		$\text{A}/\mu\text{s}$
Operating Junction Temperature	T_J	-40 to +125		$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +150		$^\circ\text{C}$

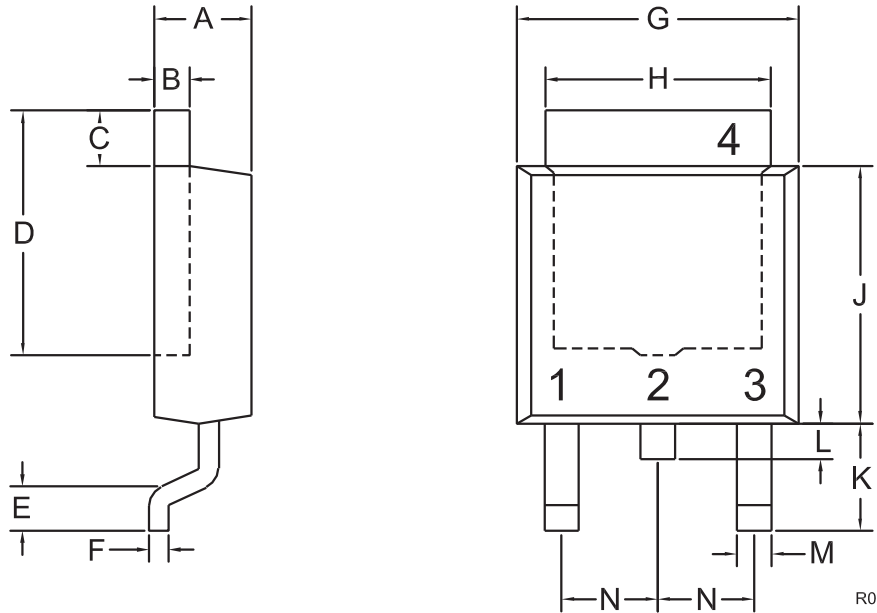
ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)					
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}			10	μA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, T_C=125^\circ\text{C}$			2.0	mA
I_{GT}	$V_D=12\text{V}, R_L=10\Omega$		3.0	15	mA
I_H	$I_T=100\text{mA}$		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			$\text{V}/\mu\text{s}$

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DPAK THYRISTOR CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING:

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)

R1 (17-February 2010)