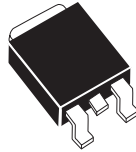


MCR703A MCR704A
MCR706A MCR708A

4.0 AMP SCR
100 THRU 600 VOLTS



DPAK THYRISTOR CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MCR703A, MCR704A, MCR706A, and MCR708A are epoxy molded Silicon Controlled Rectifiers designed for sensing circuit applications and control systems.

MARKING CODE: FULL PART NUMBER

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

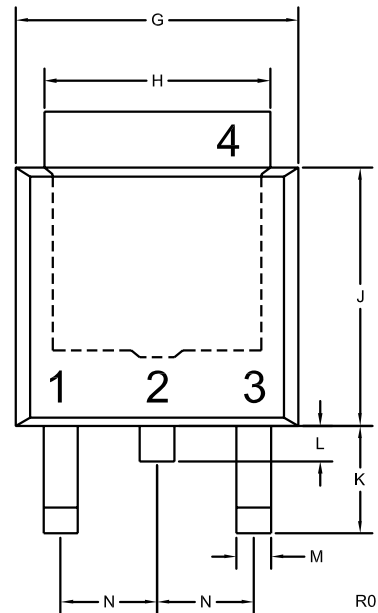
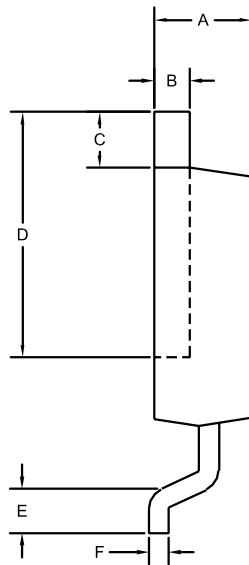
	SYMBOL	MCR703A	MCR704A	MCR706A	MCR708A	UNITS
Peak Repetitive Off-State Voltage	$V_{\text{DRM}}, V_{\text{RRM}}$	100	200	400	600	V
RMS On-State Current ($T_C=85^\circ\text{C}$)	$I_{\text{T(RMS)}}$		4.0			A
Peak non-Repetitive Surge Current (1/2 cycle Sine wave, 50Hz/60Hz)	I_{TSM}		15			A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t		1.1			A^2s
Peak Gate Power ($t_p=1\mu\text{s}$)	P_{GM}		0.5			W
Average Gate Power Dissipation	$P_{\text{G(AV)}}$		0.1			W
Peak Gate Current ($t_p=1\mu\text{s}$)	I_{GM}		0.2			A
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
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1\text{K}\Omega$			10	μA
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1\text{K}\Omega, T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		38	75	μA
I_{H}	$I_{\text{T}}=50\text{mA}, R_{\text{GK}}=1\text{K}\Omega$		0.25	2.0	mA
V_{GT}	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		0.55	0.8	V
V_{TM}	$I_{\text{TM}}=8.0\text{A}, t_p=380\mu\text{s}$		1.6	1.8	V
dv/dt	$V_{\text{D}}=2/3 V_{\text{DRM}}, R_{\text{GK}}=1\text{K}\Omega, T_C=125^\circ\text{C}$	10			$\text{V}/\mu\text{s}$

R0 (9-May 2005)

DPAK THYRISTOR CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) GATE
- 2) ANODE
- 3) CATHODE
- 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 (9-May 2005)