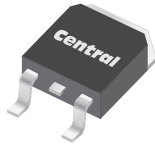


MCR703A MCR704A  
MCR706A MCR708A

**SURFACE MOUNT  
SILICON CONTROLLED RECTIFIERS  
4.0 AMP, 100 THRU 600 VOLT**



**DPAK CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR MCR703A, MCR704A, MCR706A, and MCR708A are epoxy molded SCRs designed for sensing circuit and control system applications.

**MARKING: 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)	$I_{\text{TSM}}$		15			A
$I^2t$ Value for Fusing, $t=10\text{ms}$	$I^2t$		1.1			$\text{A}^2\text{s}$
Peak Gate Power, $t_p=1.0\mu\text{s}$	$P_{\text{GM}}$		0.5			W
Average Gate Power Dissipation	$P_{\text{G(AV)}}$		0.1			W
Peak Gate Current, $t_p=1.0\mu\text{s}$	$I_{\text{GM}}$		0.2			A
Critical Rate of Rise of On-State Current	$di/dt$		50			$\text{A}/\mu\text{s}$
Storage Temperature	$T_{\text{stg}}$		-40 to +150			$^{\circ}\text{C}$
Junction Temperature	$T_{\text{J}}$		-40 to +125			$^{\circ}\text{C}$

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

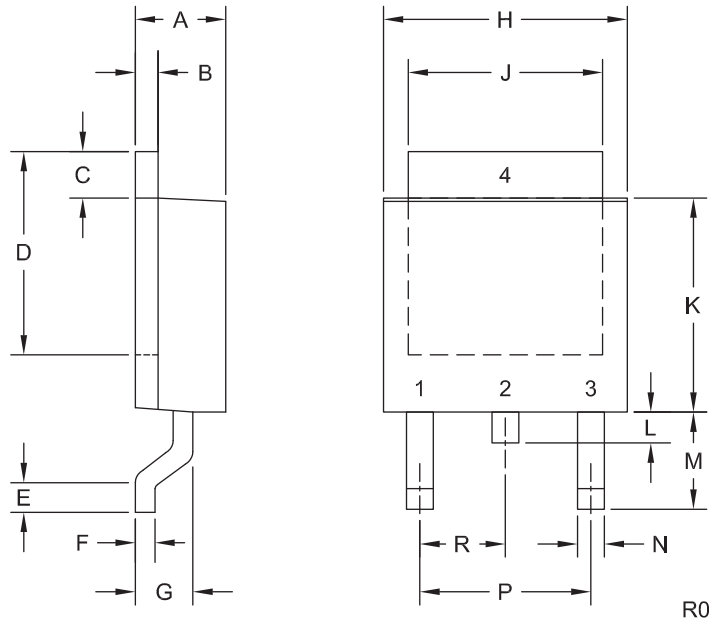
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1.0\text{K}\Omega$			10	$\mu\text{A}$
$I_{\text{DRM}}, I_{\text{RRM}}$	Rated $V_{\text{DRM}}, V_{\text{RRM}}, R_{\text{GK}}=1.0\text{K}\Omega, T_C=125^{\circ}\text{C}$			200	$\mu\text{A}$
$I_{\text{GT}}$	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		38	75	$\mu\text{A}$
$I_{\text{H}}$	$I_{\text{T}}=50\text{mA}, R_{\text{GK}}=1.0\text{K}\Omega$		0.25	2.0	mA
$V_{\text{GT}}$	$V_{\text{D}}=12\text{V}, R_{\text{L}}=10\Omega$		0.55	0.8	V
$V_{\text{TM}}$	$I_{\text{TM}}=8.0\text{A}, t_p=380\mu\text{s}$		1.6	1.8	V
$dv/dt$	$V_{\text{D}}=2/3 V_{\text{DRM}}, R_{\text{GK}}=1.0\text{K}\Omega, T_C=125^{\circ}\text{C}$	10			$\text{V}/\mu\text{s}$

MCR703A MCR704A  
MCR706A MCR708A

**SURFACE MOUNT  
SILICON CONTROLLED RECTIFIERS  
4.0 AMP, 100 THRU 600 VOLT**



**DPAK CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

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

**MARKING:**

**FULL PART NUMBER**

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.083	0.108	2.10	2.75
B	0.016	0.032	0.40	0.81
C	0.035	0.063	0.89	1.60
D	0.203	0.228	5.15	5.79
E	0.020	-	0.51	-
F	0.018	0.024	0.45	0.60
G	0.051	0.071	1.30	1.80
H	0.248	0.268	6.30	6.81
J	0.197	0.217	5.00	5.50
K	0.209	0.245	5.30	6.22
L	0.025	0.040	0.64	1.02
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: R0)

R2 (21-January 2013)

## 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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