

CS39-4B
 CS39-4D
 CS39-4M
 CS39-4N

**SILICON CONTROLLED RECTIFIERS
 4.0 AMP, 200 THRU 800 VOLT**



TO-39 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS39-4B series devices are hermetically sealed silicon controlled rectifiers designed for sensing circuit applications and control systems.

MARKING: FULL PART NUMBER

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

	SYMBOL	CS39 -4B	CS39 -4D	CS39 -4M	CS39 -4N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	V
RMS On-State Current ($T_C=90^\circ\text{C}$)	$I_T(\text{RMS})$			4.0		A
Peak One Cycle Surge Current ($t=10\text{ms}$)	I_{TSM}			35		A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t			4.5		A^2s
Peak Gate Power Dissipation ($t_p=10\mu\text{s}$)	P_{GM}			3.0		W
Average Gate Power Dissipation	$P_{G(AV)}$			0.2		W
Peak Gate Current ($t_p=10\mu\text{s}$)	I_{GM}			1.2		A
Operating Junction Temperature	T_J			-40 to +125		$^\circ\text{C}$
Storage Temperature	T_{stg}			-65 to +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}			180		$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}			10		$^\circ\text{C/W}$

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

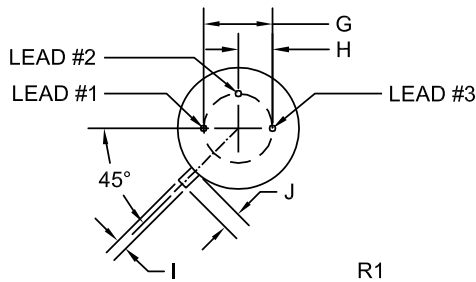
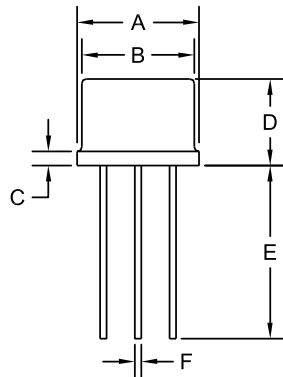
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega$			5.0	μA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_D=12\text{V}, R_L=10\Omega$		38	200	μA
I_H	$I_T=50\text{mA}, R_{GK}=1.0\text{K}\Omega$		0.25	5.0	mA
V_{GT}	$V_D=12\text{V}, R_L=10\Omega$		0.55	0.8	V
V_{GD}	$V_D=300\text{V}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$	0.2			V
V_{TM}	$I_T=6.6\text{A}$		1.6	1.95	V
dv/dt	$V_D=2/3 V_{DRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$	10			V/ μs

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TO-39 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-39 (REV: R1)

LEAD CODE:

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

MARKING: FULL PART NUMBER

R5 (21-February 2020)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd 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

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).

CONTACT US

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