CS18B
CS18D
CS18M
CS18N

SILICON CONTROLLED RECTIFIER
1 AMP, 200 THRU 800 VOLTS

TO-18 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS18B series types are hermetically sealed silicon controlled rectifiers manufactured in a TO-18 case, designed for control systems and sensing circuit applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C unless otherwise noted)

	SYMBOL	CS18B	CS18D	CS18M	CS18N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}, V_{RRM}	200	400	600	800	V
RMS On-State Current (T_C=90°C)	$I_{T(RMS)}$		1.0			A
Nonrept. On-State Current	I_{TSM}		10			A
Fusing Current (t=10ms)	I^2t		0.24			A^2s
Peak Gate Current (t=10μs)	I_{GM}		1.0			A
Peak Gate Dissipation (t=10μs)	P_{GM}		2.0			W
Gate Dissipation	$P_{G(AV)}$		0.1			W
Operating Junction Temperature	T_J		-40 to +125			°C
Storage Temperature	T_{stg}		-40 to +150			°C
Thermal Resistance	Θ_{JC}		32			°C/W
Thermal Resistance	Θ_{JA}		200			°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}, R_{GK}=1.0KΩ			1.0	μA
I_{DRM}, I_{RRM}	Rated V_{DRM}, V_{RRM}, R_{GK}=1.0KΩ, T_C=125°C			0.1	mA
V_{TM}	I_T=2.0A		1.6	2.15	V
I_{GT}	V_D=12V, R_L=10Ω		20	200	μA
V_{GT}	V_D=12V, R_L=10Ω		0.65	0.8	V
I_H	R_{GK}=1.0KΩ		0.5	5.0	mA
dv/dt	V_D=0.67V x V_{DRM}, R_{GK}=1.0KΩ, T_C=125°C	25			V/μs

R2 (18-January 2010)

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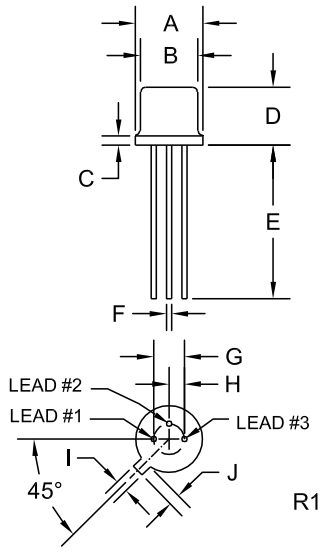
TO-18 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

LEAD CODE:
1) CATHODE
2) GATE
3) ANODE

MARKING:
FULL PART NUMBER

R2 (18-January 2010)

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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