

CS18B
CS18D
CS18M
CS18N

**SILICON CONTROLLED RECTIFIER
1 AMP, 200 THRU 800 VOLTS**



TO-18 CASE



www.centrasemi.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: ($T_A=25^\circ\text{C}$ 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 ($T_C=90^\circ\text{C}$)	$I_T(\text{RMS})$			1.0		A
Nonrept. On-State Current	I_{TSM}			10		A
Fusing Current ($t=10\text{ms}$)	I^2t			0.24		A^2s
Peak Gate Current ($t=10\mu\text{s}$)	I_{GM}			1.0		A
Peak Gate Dissipation ($t=10\mu\text{s}$)	P_{GM}			2.0		W
Gate Dissipation	$P_{G(AV)}$			0.1		W
Operating Junction Temperature	T_J		-40 to +125			$^\circ\text{C}$
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Thermal Resistance	θ_{JC}			32		$^\circ\text{C/W}$
Thermal Resistance	θ_{JA}			200		$^\circ\text{C/W}$

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

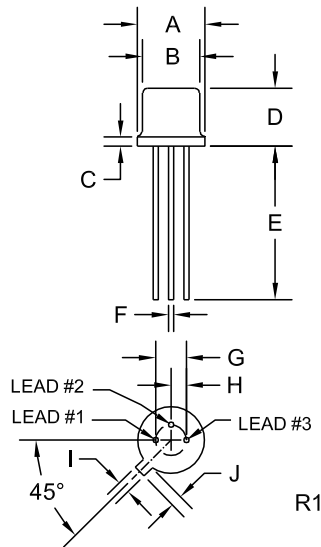
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega$			1.0	μA
I_{DRM}, I_{RRM}	Rated $V_{DRM}, V_{RRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$			0.1	mA
V_{TM}	$I_T=2.0\text{A}$		1.6	2.15	V
I_{GT}	$V_D=12\text{V}, R_L=10\Omega$		20	200	μA
V_{GT}	$V_D=12\text{V}, R_L=10\Omega$		0.65	0.8	V
I_H	$R_{GK}=1.0\text{K}\Omega$		0.5	5.0	mA
dv/dt	$V_D=0.67V \times V_{DRM}, R_{GK}=1.0\text{K}\Omega, T_C=125^\circ\text{C}$	25			$\text{V}/\mu\text{s}$

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TO-18 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	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)