

CS18B
CS18D
CS18M
CS18N

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



TO-18 CASE

CentralTM
Semiconductor Corp.

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 CODE: 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	$V_{\text{DRM}}, V_{\text{RRM}}$	200	400	600	800	V
RMS On-State Current ($T_C=90^\circ\text{C}$)	$I_{\text{T(RMS)}}$		1.0			A
Nonrept. On-State Current	I_{TSM}		10			A
Fusing Current ($t=10\text{ms}$)	I_{2t}		0.24			A ² s
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	$P_{\text{G (AV)}}$		0.1			W
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Junction Temperature	T_{J}		-40 to +125			$^\circ\text{C}$
Thermal Resistance	θ_{JC}		32			$^\circ\text{C/W}$
Thermal Resistance	θ_{JA}		200			$^\circ\text{C/W}$

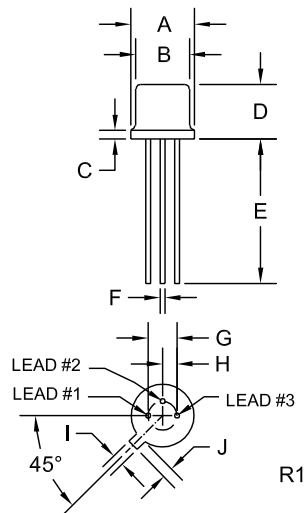
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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

R1 (18-August 2004)

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TO-18 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) CATHODE
- 2) GATE
- 3) ANODE

MARKING CODE:

FULL PART NUMBER

SYMBOL	DIMENSIONS			
	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)