

CS18BZ
CS18DZ
CS18MZ
CS18NZ

SILICON CONTROLLED RECTIFIERS
1.0 AMP, 200 THRU 800 VOLT



TO-18 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CS18BZ 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	CS18BZ	CS18DZ	CS18MZ	CS18NZ	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^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	$P_{\text{G(AV)}}$		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
$I_{\text{DRM}}, I_{\text{RRM}}$	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	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

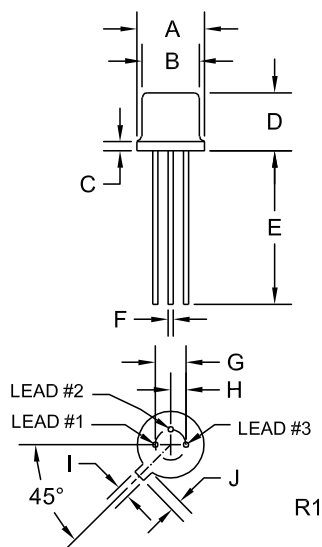
R0 (13-February 2013)

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TO-18 CASE - MECHANICAL OUTLINE



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)

LEAD CODE:

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

MARKING:

FULL PART NUMBER

R0 (13-February 2013)

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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