

CZR1-04

**SURFACE MOUNT SILICON
HIGH VOLTAGE RECTIFIER**



SOT-223 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZR1-04 is a general purpose silicon rectifier designed for applications requiring high voltage capability.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

	SYMBOL		UNITS
Reverse Voltage	V_R	400	V
Peak Reverse Voltage	V_{RM}	400	V
Average Forward Current	I_O	1.0	A
Peak Forward Surge Current, $t=10\text{ms}$	I_{FSM}	10	A
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Power Dissipation	P_D	2.0	W
Thermal Resistance	θ_{JA}	62.5	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=400\text{V}$			1.0	μA
I_R	$V_R=400\text{V}, T_A=150^\circ\text{C}$			50	μA
BV_R	$I_R=100\mu\text{A}$	400			V
V_F	$I_F=1.0\text{A}$			1.2	V
V_F	$I_F=2.0\text{A}$			1.5	V
t_{rr}	$I_F=200\text{mA}, I_R=200\text{mA}, I_{rr}=20\text{mA}$		1.0		μs
C_J	$V_R=0, f=1.0\text{MHz}$		26		pF

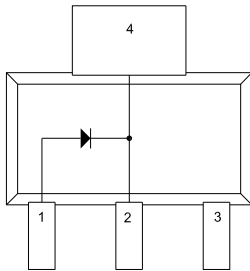
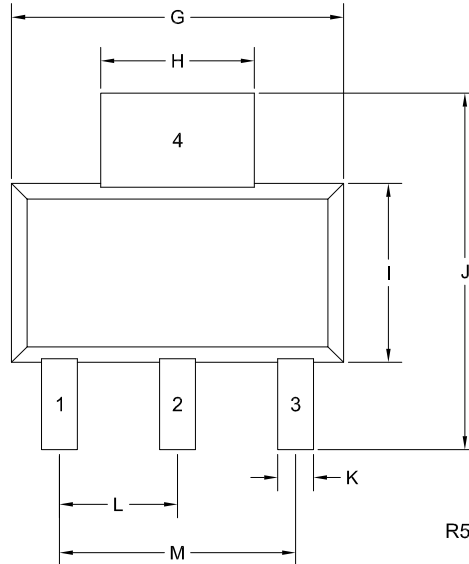
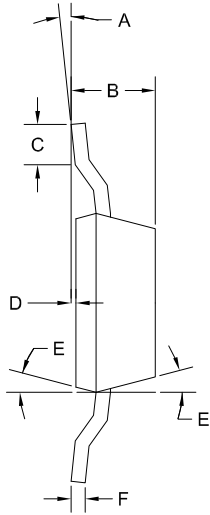
R7 (7-May 2019)

CZR1-04

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SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Anode
 - 2) Cathode
 - 3) No Connection
 - 4) Cathode
- Pin 2 and Pin 4 are common.

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	0.059	0.071	1.50	1.80
C	0.018	---	0.45	---
D	0.000	0.004	0.00	0.10
E	10°		10°	
F	0.009	0.014	0.23	0.35
G	0.248	0.270	6.30	6.85
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.70
J	0.264	0.287	6.70	7.30
K	0.024	0.033	0.60	0.85
L	0.091		2.30	
M	0.181		4.60	

SOT-223 (REV: R5)

MARKING: FULL PART NUMBER

R7 (7-May 2019)



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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