

CZR1-04

**SURFACE MOUNT  
HIGH VOLTAGE  
SILICON RECTIFIER**



**SOT-223 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZR1-04 type is a General Purpose Silicon Rectifier designed for applications requiring high voltage capability.

**MARKING CODE: FULL PART NUMBER**

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

	<b>SYMBOL</b>		<b>UNITS</b>
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	$\theta_{JA}$	62.5	$^\circ\text{C/W}$

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

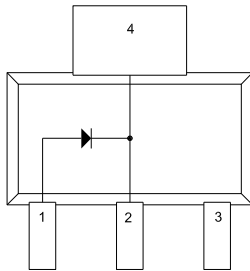
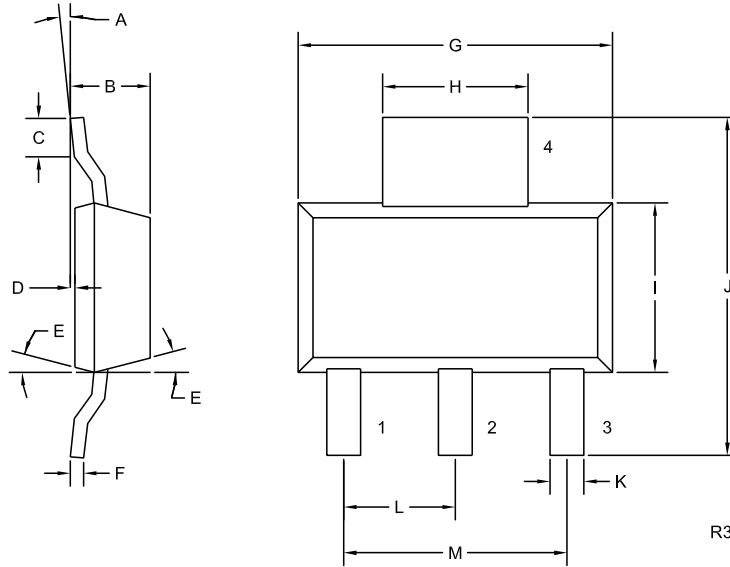
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=400\text{V}$			1.0	$\mu\text{A}$
$I_R$	$V_R=400\text{V}, T_A=150^\circ\text{C}$			50	$\mu\text{A}$
$BV_R$	$I_R=100\mu\text{A}$	400			V
$V_F$	$I_F=1.0\text{A}$			1.2	V
$V_F$	$I_F=2.0\text{A}$			1.5	V
$t_{rr}$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

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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	DIMENSIONS			
	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	15°		15°	
F	0.009	0.014	0.23	0.35
G	0.248	0.264	6.30	6.70
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: R3)

**MARKING: FULL PART NUMBER**

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