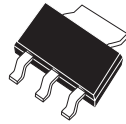


**CZR1-04**  
**SURFACE MOUNT**  
**HIGH VOLTAGE RECTIFIER**



**SOT-223 CASE**

# Central<sup>TM</sup>

**Semiconductor Corp.**

**DESCRIPTION:**

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

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

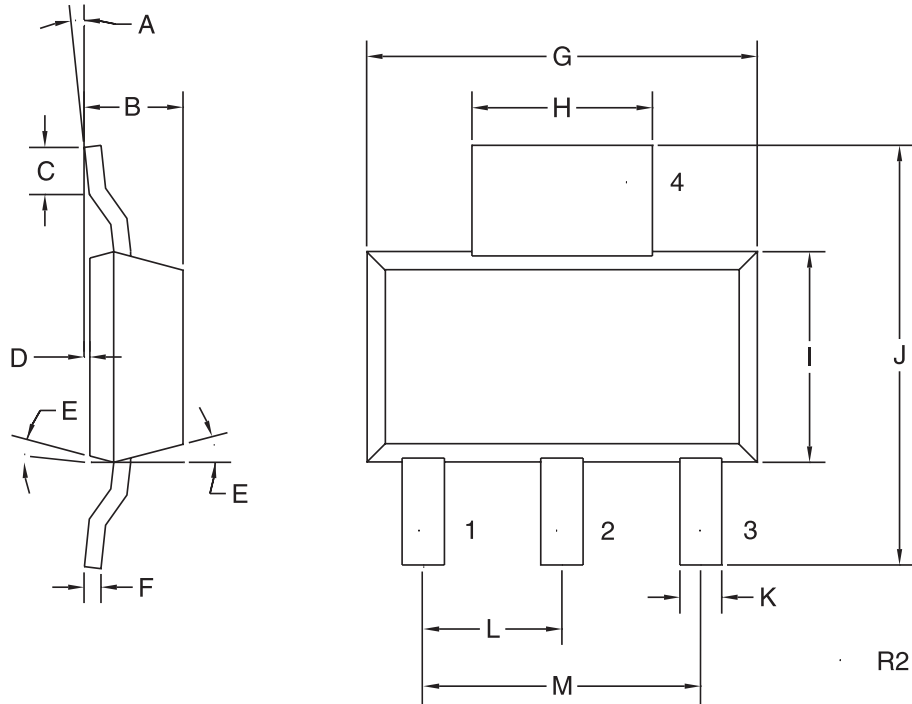
	<u>SYMBOL</u>		<u>UNITS</u>
Reverse Voltage	$V_R$	400	V
Peak Reverse Voltage	$V_{RM}$	400	V
Average Forward Current	$I_O$	1.0	A
Peak Forward Surge Current, $t=1.0\mu\text{s}$	$I_{FSM}$	10	A
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Power Dissipation	$P_D$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

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

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
$I_R$	$V_R=400\text{V}$			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		$\mu\text{s}$
$C_J$	$V_R=0\text{V}, f=1.0\text{MHz}$		10		pF

**SURFACE MOUNT  
HIGH VOLTAGE RECTIFIER**

**SOT-223 CASE- MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) ANODE
- 2) CATHODE
- 3) NO CONNECTION
- 4) CATHODE

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	7°	0°	7°
B	0.063	0.067	1.60	1.70
C	0.022		0.55	
D	0.001	0.004	0.03	0.10
E	15°		15°	
F	0.009	0.013	0.23	0.33
G	0.248	0.264	6.30	6.71
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.71
J	0.264	0.287	6.71	7.29
K	0.024	0.031	0.61	0.79
L	0.091		2.31	
M	0.181		4.60	

SOT-223 (REV: R2)