

**CMDD2004**  
**SUPERmini™**  
**SURFACE MOUNT**  
**HIGH VOLTAGE SWITCHING DIODE**

**SUPERmini™**  
  
**SOD-323 CASE**

# Central™

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMDD2004 type is a high voltage silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a SUPERmini™ surface mount package, designed for applications requiring high voltage capability. Marking code is **C24**.

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

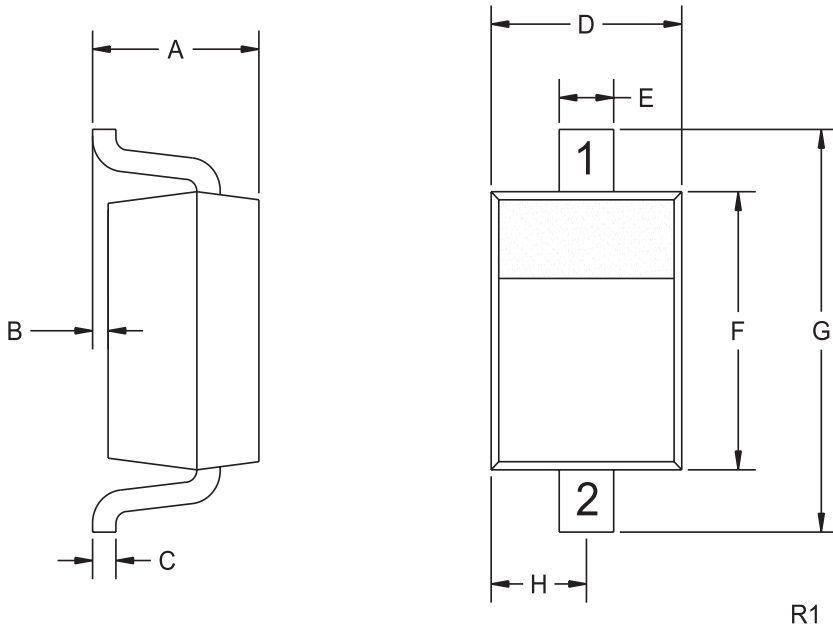
	<b>SYMBOL</b>		<b>UNITS</b>
Continuous Reverse Voltage	$V_R$	240	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	300	V
Peak Repetitive Reverse Current	$I_O$	200	mA
Continuous Forward Current	$I_F$	225	mA
Peak Repetitive Forward Current	$I_{FRM}$	625	mA
Forward Surge Current, $t_p=1 \mu\text{sec}$ .	$I_{FSM}$	4000	mA
Forward Surge Current, $t_p=1 \text{ sec}$ .	$I_{FSM}$	1000	mA
Power Dissipation	$P_D$	250	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	500	$^\circ\text{C/W}$

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

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNIT</b>
$B_{VR}$	$I_R=100\mu\text{A}$	300		V
$I_R$	$V_R=240\text{V}$		100	nA
$I_R$	$V_R=240\text{V}, T_A=150^\circ\text{C}$		100	$\mu\text{A}$
$V_F$	$I_F=100\text{mA}$		1.0	V
$C_T$	$V_R=0, f=1 \text{ MHz}$		5.0	pF
$t_{rr}$	$I_F=I_R=30\text{mA}, \text{Rec. To } 3.0\text{mA}, R_L=100\Omega$		50	ns

**SUPERmini**<sup>TM</sup>  
**SURFACE MOUNT**  
**HIGH VOLTAGE SWITCHING**  
**DIODE**

**SOD-323 CASE - MECHANICAL OUTLINE**



LEAD CODE:

- 1) Cathode
- 2) Anode

**MARKING CODE: C24**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.039	0.043	1.00	1.10
B	0.000	0.004	0.00	0.10
C	0.005	0.008	0.14	0.22
D	0.045	0.053	1.15	1.35
E	0.011	0.015	0.28	0.38
F	0.063	0.071	1.60	1.80
G	0.094	0.102	2.40	2.60
H	0.023	0.027	0.58	0.68

SOD-323 (REV: R1)

R1 ( 7-August 2001)



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