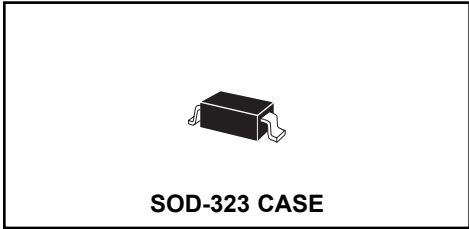


PRELIMINARY

**CMDD7006**  
**SURFACE MOUNT**  
**VERY HIGH VOLTAGE**  
**SILICON SWITCHING DIODE**



# Central<sup>TM</sup>

## Semiconductor Corp.

**DESCRIPTION:**

The Central Semiconductor CMDD7006 is a silicon switching diode manufactured by the epitaxial planar process and packaged in an epoxy molded SOD-323 surface mount case. This device is designed for applications requiring high voltage switching diodes.

**MARKING CODE: 6C7**

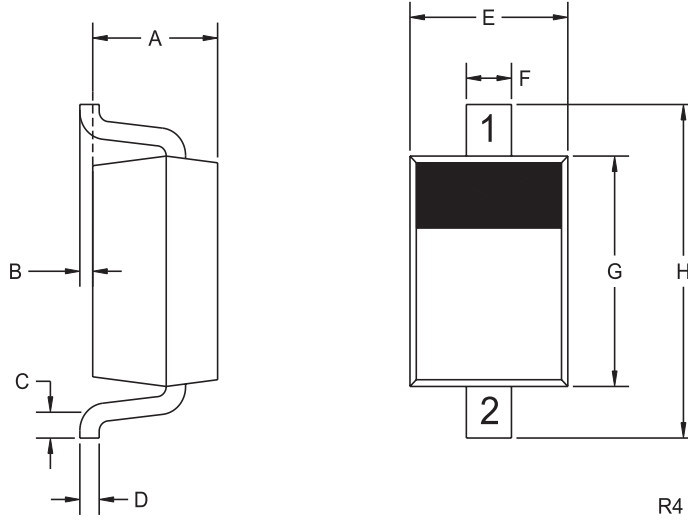
**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

	SYMBOL		UNITS
Continuous Reverse Voltage	$V_R$	600	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	600	V
Continuous Forward Current	$I_F$	100	mA
Peak Repetitive Forward Current	$I_{FRM}$	300	mA
Forward Surge Current, $t_p=1.0 \mu\text{s}$	$I_{FSM}$	4.0	A
Forward Surge Current, $t_p=1.0 \text{s}$	$I_{FSM}$	1.0	A
Power Dissipation	$P_D$	250	mW
Operating and Storage	$T_J, T_{stg}$	-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)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=480\text{V}$		7.0	100	nA
$I_R$	$V_R=480\text{V}, T_A=150^\circ\text{C}$			100	$\mu\text{A}$
$BV_R$	$I_R=1.0\mu\text{A}$	600	675		V
$V_F$	$I_F=10\text{mA}$		0.88	1.0	V
$V_F$	$I_F=50\text{mA}$		1.04	1.2	V
$V_F$	$I_F=100\text{mA}$		1.16	1.4	V
$C_T$	$V_R=0\text{V}, f=1.0 \text{MHz}$			5.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$			500	ns

**SOD-323 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

- 1) CATHODE
- 2) ANODE

**MARKING CODE: 6C7**

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.031	0.039	0.80	1.00
B	0.000	0.004	0.00	0.10
C	0.008	-	0.20	-
D	0.004	0.007	0.11	0.19
E	0.045	0.053	1.15	1.35
F	-	0.014	-	0.35
G	0.063	0.071	1.60	1.80
H	0.094	0.102	2.40	2.60

SOD-323 (REV: R4)