CMDD7006

SURFACE MOUNT
VERY HIGH VOLTAGE
SILICON SWITCHING DIODE

SOD-323 CASE

Central™
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°C)

	SYMBOL		UNITS
Continuous Reverse Voltage	V_R	600	V
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Continous Forward Current	I_F	100	mA
Peak Repetitive Forward Current	I_{FRM}	300	mA
Forward Surge Current, tp=1.0 μs	I_{FSM}	4.0	A
Forward Surge Current, tp=1.0 s	I_{FSM}	1.0	A
Power Dissipation	P_D	250	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	500	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

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

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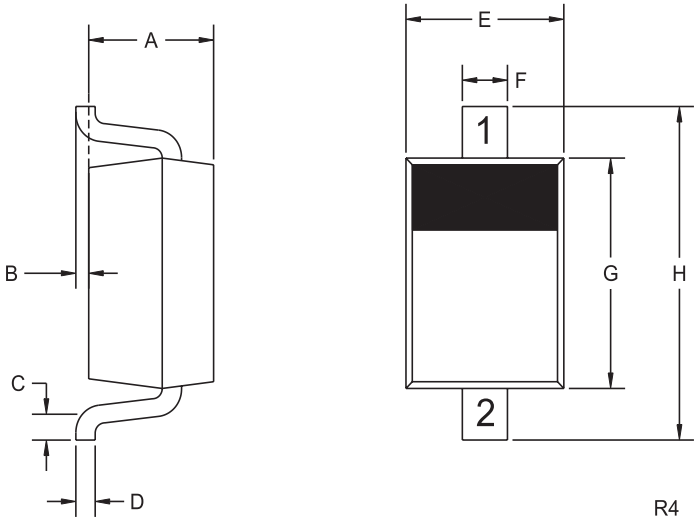
SOD-323 CASE - MECHANICAL OUTLINE



R4

LEAD CODE:
1) CATHODE
2) ANODE

MARKING CODE: 6C7

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

R0 (12-January 2004)