

CMUDW6001

**SURFACE MOUNT
ULTRA LOW LEAKAGE
SILICON SWITCHING DIODE**



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ULTRAmini™



SOT-523W CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUDW6001 type is a silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a ULTRAMini™ surface mount package, designed for switching applications requiring an extremely low leakage diode.

MARKING CODE: 61W

APPLICATIONS:

- Steering diode
- Flyback diode
- Voltage multiplier
- Reverse polarity protection

FEATURES:

- Ultra low leakage current (500pA)
- High peak forward surge current (4.0A)
- Space saving package with gull-wing leads

MAXIMUM RATINGS: (T_A=25°C)

Continuous Reverse Voltage
Peak Repetitive Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current
Peak Forward Surge Current, tp=1.0µs
Peak Forward Surge Current, tp=1.0s
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V _R	75	V
V _R RM	100	V
I _F	250	mA
I _F RM	250	mA
I _F SM	4.0	A
I _F SM	1.0	A
P _D	250	mW
T _J , T _{stg}	-65 to +150	°C
θ _{JA}	500	°C/W

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

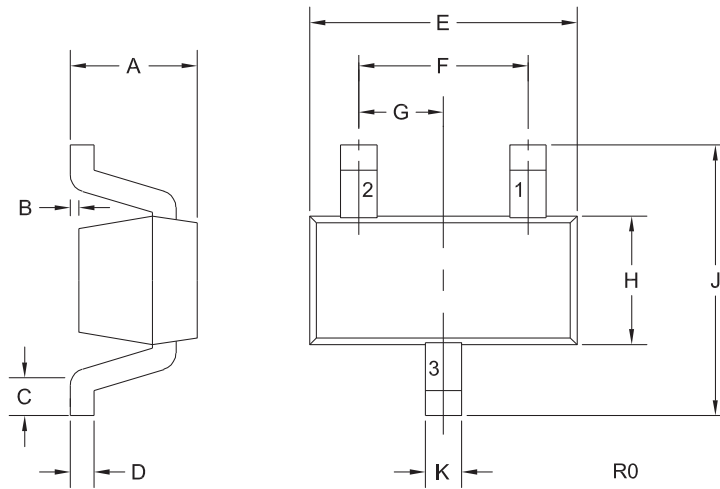
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _R	V _R =75V		250	500	pA
BV _R	I _R =100µA	100	125		V
V _F	I _F =1.0mA		0.76	0.85	V
V _F	I _F =10mA		0.85	0.95	V
V _F	I _F =100mA		0.99	1.1	V
C _T	V _R =0, f=1.0MHz		1.7	2.0	pF
t _{rr}	I _R =I _F =10mA, I _{rr} =1.0mA, R _L =100Ω			3.0	µs

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SOT-523W CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Anode
- 2) No Connection
- 3) Cathode

MARKING CODE: 61W

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	-	0.031	-	0.80
B	0.000	0.004	0.00	0.10
C	0.006	0.012	0.15	0.30
D	0.005	0.006	0.13	0.15
E	0.058	0.066	1.48	1.68
F	0.039		1.00	
G	0.020		0.50	
H	0.026	0.034	0.66	0.86
J	0.059	0.067	1.50	1.70
K	0.007	0.009	0.19	0.24

SOT-523W (REV: R0)

R3 (23-November 2011)