

CMUDW6001

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



[www.centrasemi.com](http://www.centrasemi.com)

**ULTRA**mini™



**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<sub>A</sub>=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**

V<sub>R</sub> 75  
 V<sub>R</sub>RM 100  
 I<sub>F</sub> 250  
 I<sub>F</sub>RM 250  
 I<sub>F</sub>SM 4.0  
 I<sub>F</sub>SM 1.0  
 P<sub>D</sub> 250  
 T<sub>J</sub>, T<sub>stg</sub> -65 to +150  
 θ<sub>JA</sub> 500

**UNITS**

V  
 V  
 mA  
 mA  
 A  
 A  
 mW  
 °C  
 °C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

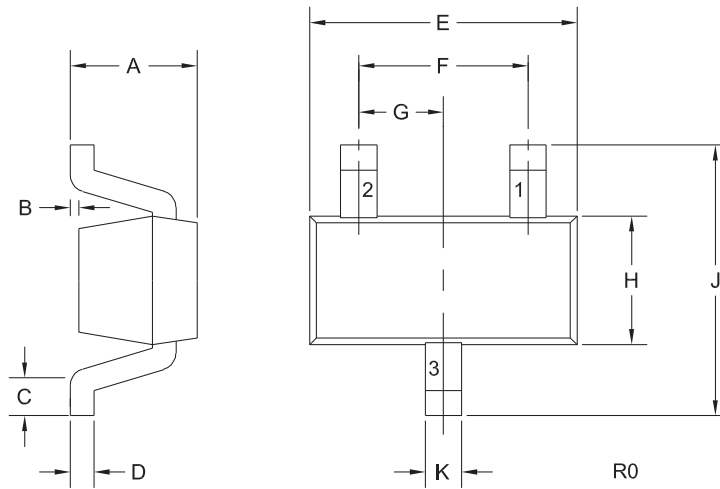
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =75V		250	500	pA
BV <sub>R</sub>	I <sub>R</sub> =100µA	100	125		V
V <sub>F</sub>	I <sub>F</sub> =1.0mA		0.76	0.85	V
V <sub>F</sub>	I <sub>F</sub> =10mA		0.85	0.95	V
V <sub>F</sub>	I <sub>F</sub> =100mA		0.99	1.1	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1.0MHz		1.7	2.0	pF
t <sub>rr</sub>	I <sub>R</sub> =I <sub>F</sub> =10mA, I <sub>rr</sub> =1.0mA, R <sub>L</sub> =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)