

CMUDW6001

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



SOT-523W CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMUDW6001 is a silicon switching diode manufactured by the epitaxial planar process, epoxy molded in a SOT-523W surface mount package, designed for switching applications requiring a 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: ($T_A=25^{\circ}\text{C}$)

Continuous Reverse Voltage
Peak Repetitive Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current
Peak Forward Surge Current, $t_p=1.0\mu\text{s}$
Peak Forward Surge Current, $t_p=1.0\text{s}$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V_R	75	V
V_{RRM}	100	V
I_F	250	mA
I_{FRM}	250	mA
I_{FSM}	4.0	A
I_{FSM}	1.0	A
P_D	250	mW
T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
θ_{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	$V_R=75\text{V}$		250	500	pA
BV_R	$I_R=100\mu\text{A}$	100	125		V
V_F	$I_F=1.0\text{mA}$		0.76	0.85	V
V_F	$I_F=10\text{mA}$		0.85	0.95	V
V_F	$I_F=100\text{mA}$		0.99	1.1	V
C_J	$V_R=0, f=1.0\text{MHz}$		1.7	2.0	pF
t_{rr}	$I_R=I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			3.0	μs

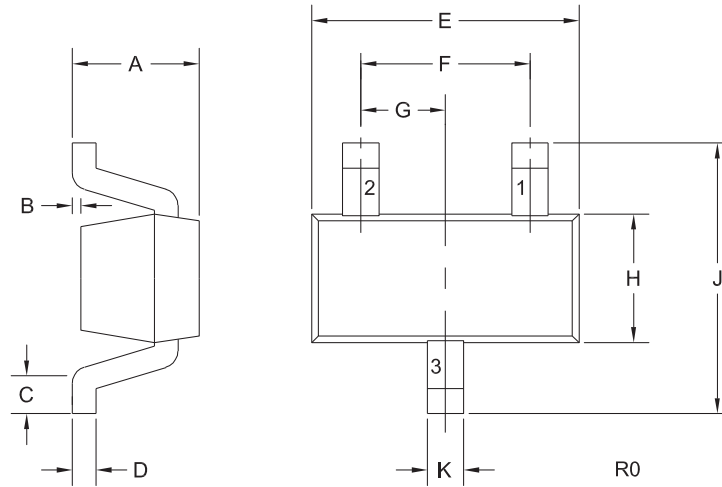
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SOT-523W CASE - MECHANICAL OUTLINE



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)

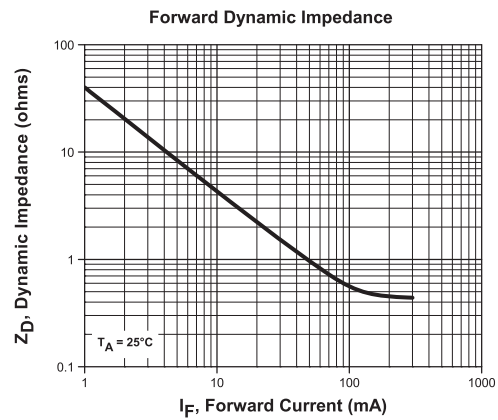
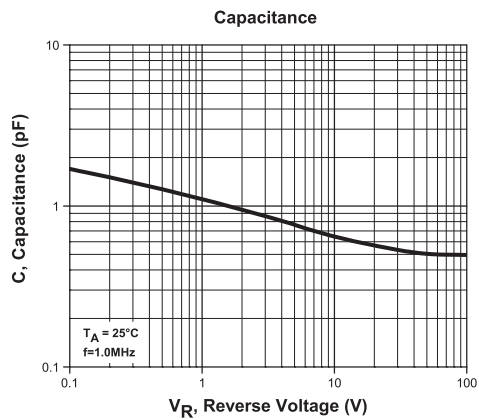
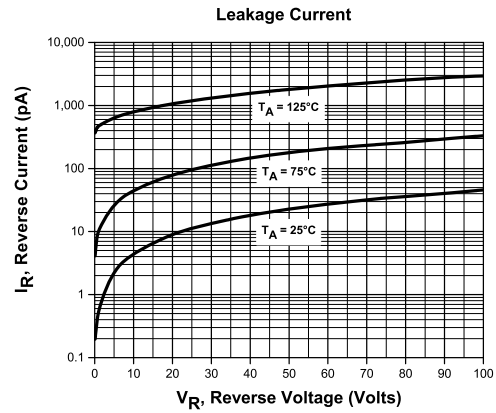
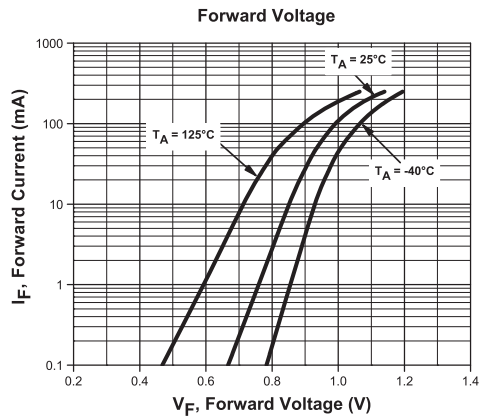
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TYPICAL ELECTRICAL CHARACTERISTICS



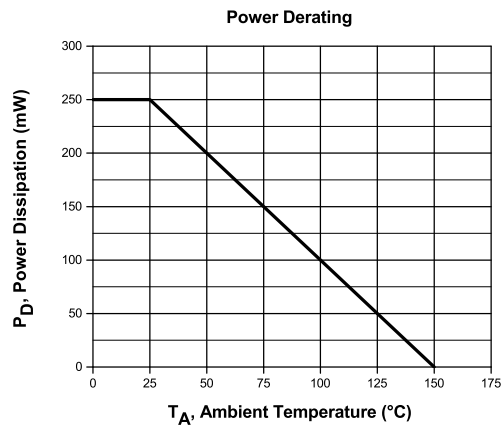
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TYPICAL ELECTRICAL CHARACTERISTICS



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms



<http://www.centrasemi.com>

Product End of Life Notification

PDN ID:	PDN01182
Notification Date:	8/13/21
Last Buy Date:	2/13/22
Last Shipment Date	8/13/22

Summary:CMUDW6001 and CMUSHW2-4L are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

<u>Central Part Number</u>	<u>Suggested Replacement</u>
CMUDW6001 TR	N/A
CMUSHW2-4L TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.