

**CMLSH05-4**  
**SURFACE MOUNT SILICON**  
**LOW  $V_F$**   
**SCHOTTKY DIODE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMLSH05-4 is a 40 Volt Schottky diode packaged in a space saving SOT-563 surface mount case. This device has been designed for applications requiring a low forward voltage drop.

**MARKING CODE: C54**



**SOT-563 CASE**

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

Peak Repetitive Reverse Voltage	$V_{RRM}$	40	V
Continuous Forward Current	$I_F$	500	mA
Peak Repetitive Forward Current, $t_p \leq 1.0\text{ms}$	$I_{FRM}$	3.5	A
Peak Forward Surge Current, $t_p = 8.0\text{ms}$	$I_{FSM}$	10	A
Power Dissipation	$P_D$	250	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
Thermal Resistance	$\theta_{JA}$	500	$^\circ\text{C/W}$

**SYMBOL**

**UNITS**

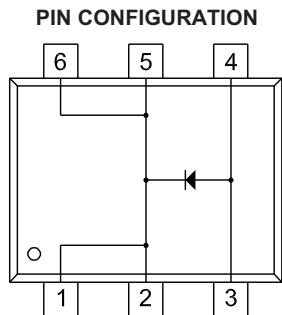
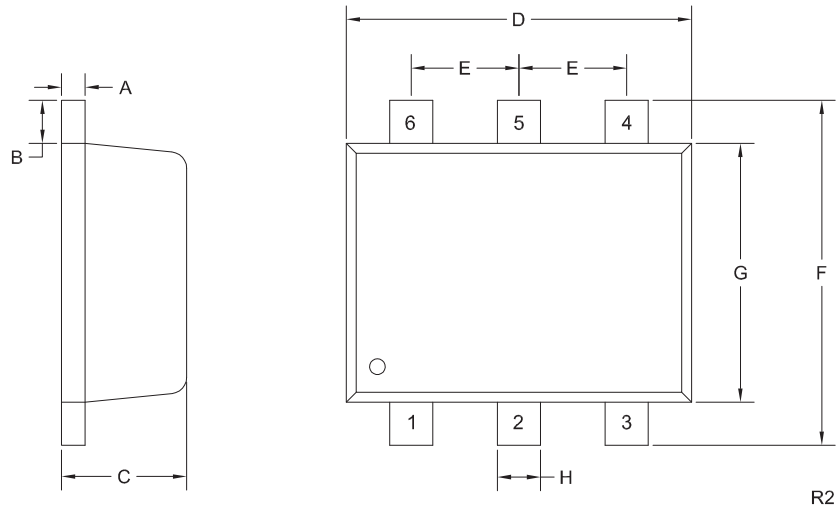
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$I_R$	$V_R=10\text{V}$		30	$\mu\text{A}$
$I_R$	$V_R=30\text{V}$		100	$\mu\text{A}$
$BV_R$	$I_R=500\mu\text{A}$	40		V
$V_F$	$I_F=100\mu\text{A}$		0.13	V
$V_F$	$I_F=1.0\text{mA}$		0.21	V
$V_F$	$I_F=10\text{mA}$		0.27	V
$V_F$	$I_F=100\text{mA}$		0.35	V
$V_F$	$I_F=500\text{mA}$		0.47	V
$C_J$	$V_R=1.0\text{V}, f=1.0\text{MHz}$		50	pF

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**SOT-563 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.0027	0.007	0.07	0.18
B	0.008		0.20	
C	0.017	0.024	0.45	0.60
D	0.059	0.067	1.50	1.70
E	0.020		0.50	
F	0.059	0.067	1.50	1.70
G	0.043	0.051	1.10	1.30
H	0.006	0.012	0.15	0.30

SOT-563 (REV: R2)

**LEAD CODE:**

- 1) Cathode
- 2) Cathode
- 3) Anode
- 4) Anode
- 5) Cathode
- 6) Cathode

**MARKING CODE: C54**

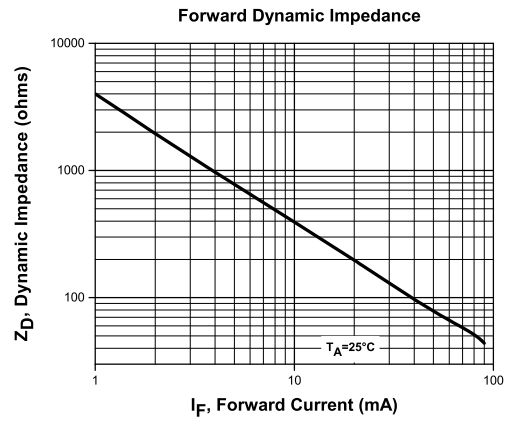
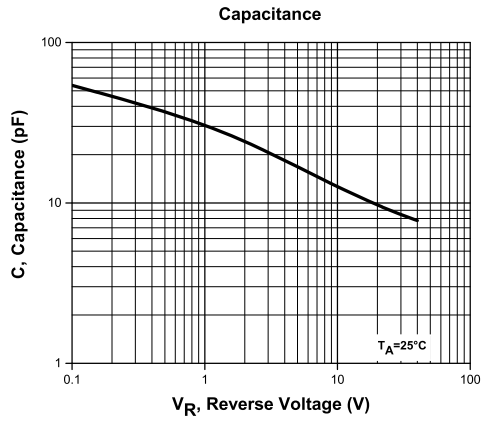
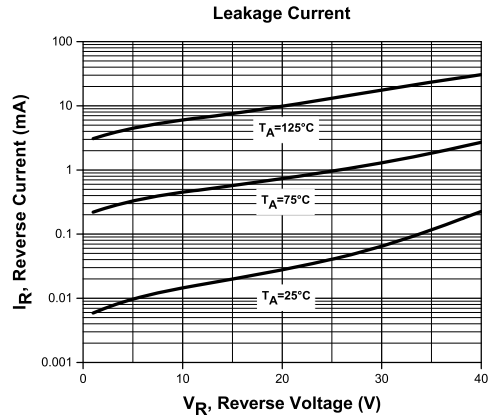
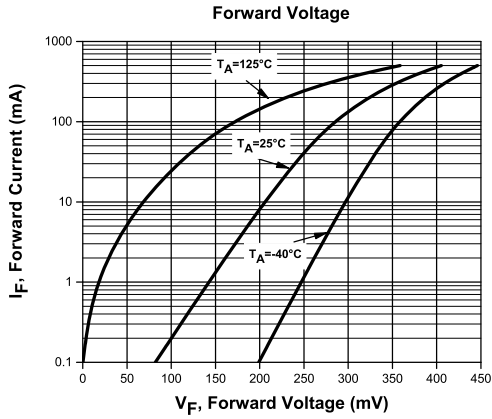
R6 (8-January 2018)

CMLSH05-4

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TYPICAL ELECTRICAL CHARACTERISTICS

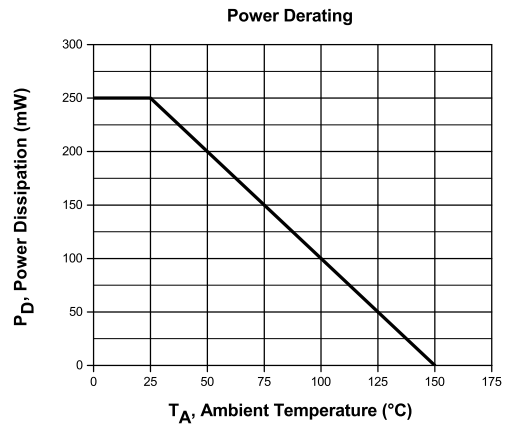
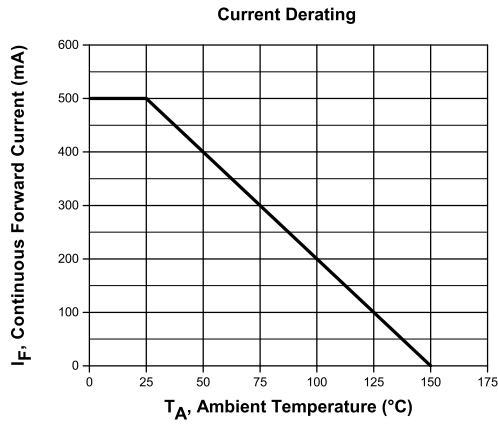


R6 (8-January 2018)

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TYPICAL ELECTRICAL CHARACTERISTICS



R6 (8-January 2018)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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).

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### CONTACT US

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