

**CMHSH5-2L**

**SURFACE MOUNT SILICON  
LOW FORWARD VOLTAGE  
SCHOTTKY RECTIFIER  
500mA, 20 VOLT**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMHSH5-2L type is a silicon Schottky rectifier, epoxy molded in a surface mount package, designed for high current applications requiring a low forward voltage drop.

**LOW  
V<sub>F</sub>**



**SOD-123 CASE**

**MARKING CODE: C2L**

**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C)

Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	20	V
Peak Working Reverse Voltage	V <sub>RWM</sub>	20	V
DC Blocking Voltage	V <sub>R</sub>	20	V
Average Rectified Current	I <sub>O</sub>	500	mA
Peak Forward Surge Current	I <sub>FSM</sub>	5.5	A
(@ rated load, halfwave, single phase, 60Hz)			
Power Dissipation	P <sub>D</sub>	400	mW
Operating Junction Temperature	T <sub>J</sub>	-65 to +125	°C
Storage Temperature	T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	θ <sub>JL</sub>	150	°C/W
Thermal Resistance	θ <sub>JA</sub>	250	°C/W

**SYMBOL**

V <sub>RRM</sub>	20	V
V <sub>RWM</sub>	20	V
V <sub>R</sub>	20	V
I <sub>O</sub>	500	mA
I <sub>FSM</sub>	5.5	A
P <sub>D</sub>	400	mW
T <sub>J</sub>	-65 to +125	°C
T <sub>stg</sub>	-65 to +150	°C
θ <sub>JL</sub>	150	°C/W
θ <sub>JA</sub>	250	°C/W

**UNITS****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> =10V		43	75	μA
I <sub>R</sub>	V <sub>R</sub> =10V, T <sub>A</sub> =100°C		4.77	5.0	mA
I <sub>R</sub>	V <sub>R</sub> =20V		70.7	250	μA
I <sub>R</sub>	V <sub>R</sub> =20V, T <sub>A</sub> =100°C		7.16	8.0	mA
BV <sub>R</sub>	I <sub>R</sub> =250μA	20			V
V <sub>F</sub>	I <sub>F</sub> =100mA		250	300	mV
V <sub>F</sub>	I <sub>F</sub> =100mA, T <sub>A</sub> =100°C		158	220	mV
V <sub>F</sub>	I <sub>F</sub> =500mA		355	385	mV
V <sub>F</sub>	I <sub>F</sub> =500mA, T <sub>A</sub> =100°C		301	330	mV
C <sub>J</sub>	V <sub>R</sub> =0, f=1.0MHz		94		pF
C <sub>J</sub>	V <sub>R</sub> =4.0V, f=1.0MHz		31		pF

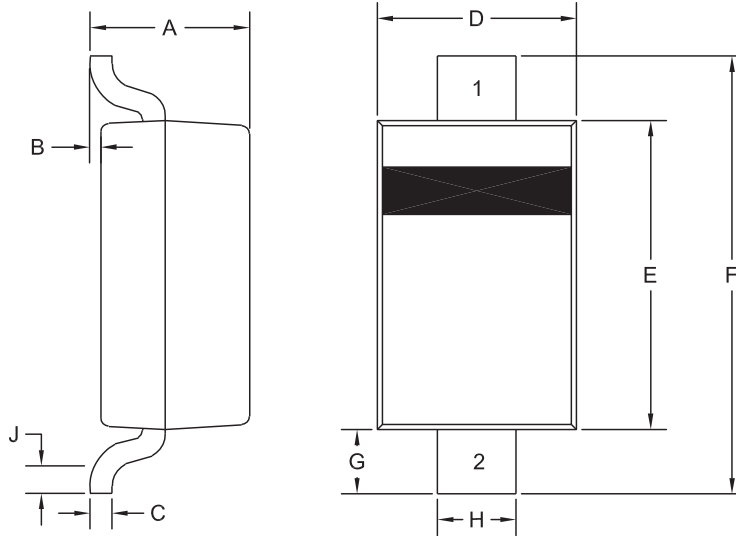
R7 (13-March 2018)

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SOD-123 CASE - MECHANICAL OUTLINE



R5

LEAD CODE

- 1) Cathode
- 2) Anode

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DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.037	0.053	0.95	1.35
B	0.000	0.005	0.00	0.12
C	-	0.008	-	0.20
D	0.055	0.071	1.40	1.80
E	0.098	0.110	2.50	2.80
F	0.142	0.154	3.60	3.90
G	0.016	-	0.40	-
H	0.020	0.028	0.50	0.70
J	0.010	-	0.25	-

SOD-123 (REV:R5)

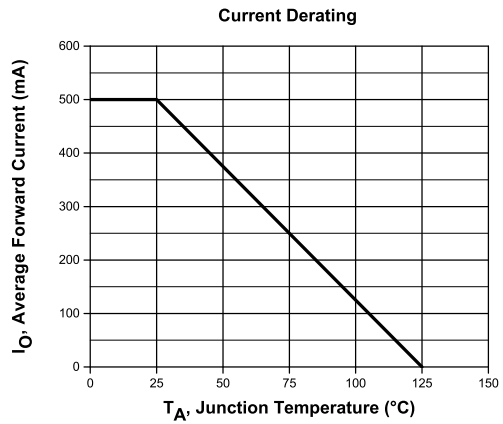
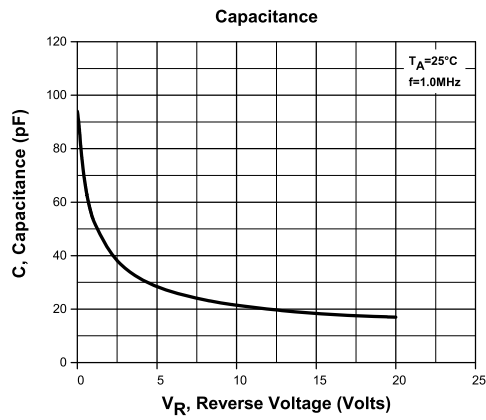
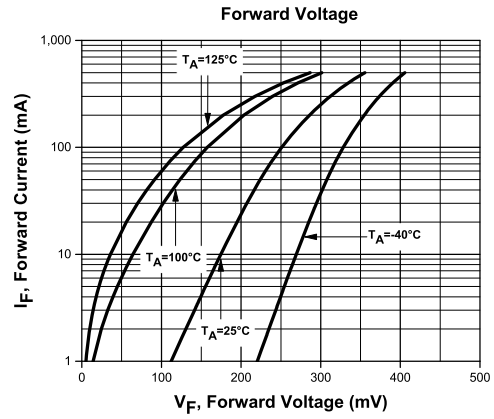
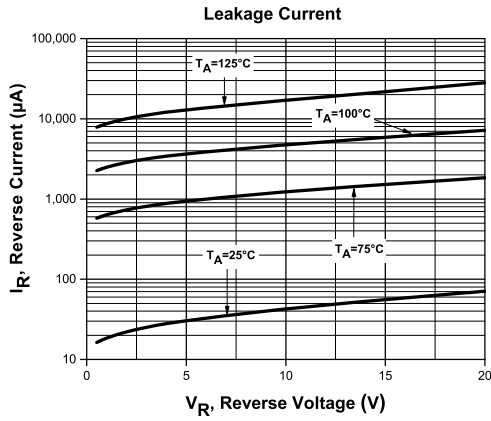
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TYPICAL ELECTRICAL CHARACTERISTICS



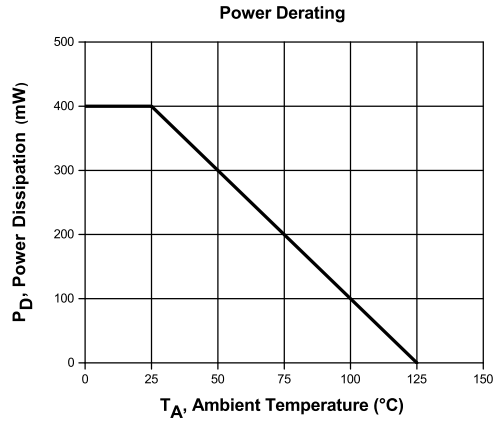
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### TYPICAL ELECTRICAL CHARACTERISTICS



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## 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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