

CMLSH05-10DA

SURFACE MOUNT SILICON
DUAL, ISOLATED OPPOSING
SCHOTTKY DIODE



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMLSH05-10DA consists of two (2) individual electrically isolated 100 Volt Schottky diodes with opposing polarity and packaged in the space saving SOT-563 surface mount case. This device has been designed for size constrained applications requiring high voltage Schottky diodes.

MARKING CODE: 10C



SOT-563 CASE

APPLICATIONS:

- LED drive circuits
- DC-DC converter output rectification
- Power management
- Reverse polarity protection

FEATURES:

- Smallest available 100V dual, isolated Schottky diode
- High reverse voltage
- Low forward voltage
- Low reverse leakage current

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

Peak Repetitive Reverse Voltage
Continuous Forward Current
Peak Forward Surge Current, $t_p=10\text{ms}$
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
V_{RRM}	100	V
I_F	500	mA
I_{FSM}	750	mA
P_D	250	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
θ_{JA}	500	$^\circ\text{C/W}$

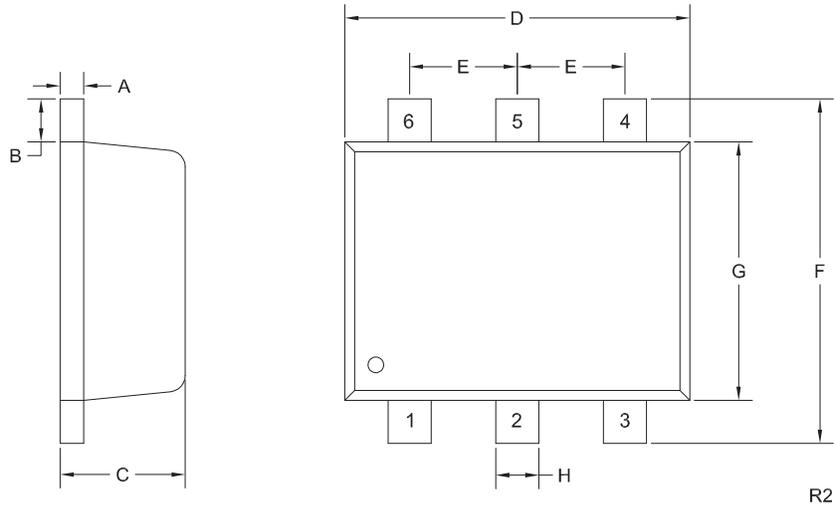
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=100\text{V}$		0.1	5.0	μA
BV_R	$I_R=200\mu\text{A}$	100	110		V
V_F	$I_F=500\text{mA}$		0.82	0.85	V

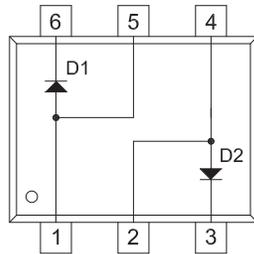
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SOT-563 CASE - MECHANICAL OUTLINE



PIN CONFIGURATION



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) Anode D1
- 2) Anode D2
- 3) Cathode D2
- 4) Anode D2
- 5) Anode D1
- 6) Cathode D1

MARKING CODE: 10C

R4 (1-July 2015)

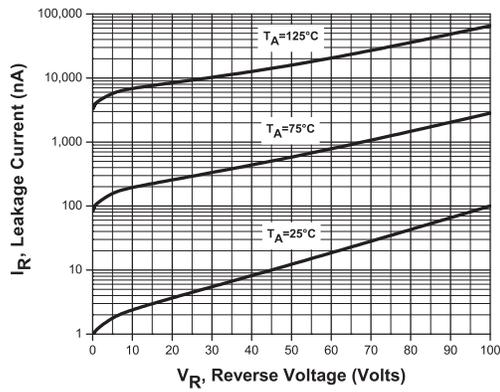
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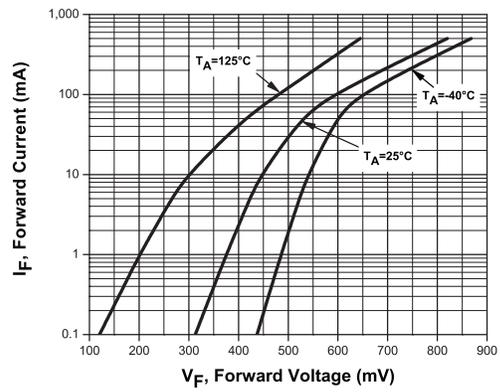


TYPICAL ELECTRICAL CHARACTERISTICS

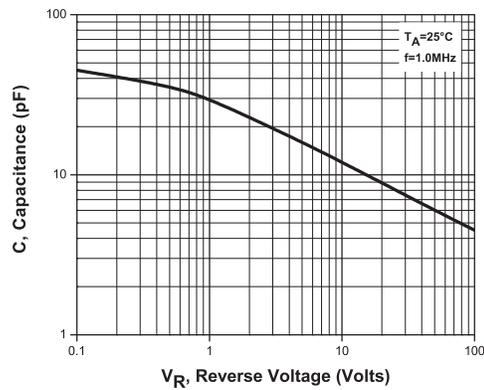
Typical Per Diode Leakage Current



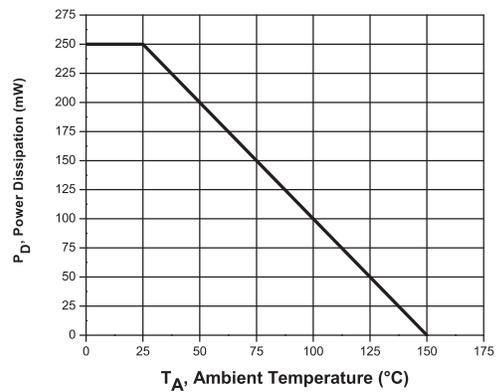
Typical Per Diode Forward Voltage



Typical Per Diode Capacitance



Power Derating



R4 (1-July 2015)

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).

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