

CMIDSH1-3
 CMIDSH1-4
 CMIDSH1-6

SURFACE MOUNT SILICON
 LOW V_F SCHOTTKY RECTIFIERS
 1 AMP, 30 THRU 60 VOLT



SOD-323FL CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMIDSH1-3, CMIDSH1-4, and CMIDSH1-6 are silicon Schottky rectifiers packaged in a space saving flat lead, low profile SOD-323FL case. These devices have been designed for applications requiring a low forward voltage drop.

MARKING CODES: CMIDSH1-3: C13
 CMIDSH1-4: C14
 CMIDSH1-6: C16

APPLICATIONS:

- DC-DC converters
- Voltage clamping
- Reverse polarity protection
- General purpose rectification

FEATURES:

- Low package profile
- High reverse voltage capability
- Low leakage current

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

Peak Repetitive Reverse Voltage
 Average Forward Current ($T_L=110^\circ\text{C}$)
 Peak Forward Surge Current, $t_p=8.3\text{ms}$
 Power Dissipation
 Operating and Storage Junction Temperature
 Thermal Resistance (Note 1)

SYMBOL	CMIDSH1-3	CMIDSH1-4	CMIDSH1-6	UNITS
V_{RRM}	30	40	60	V
I_O		1.0		A
I_{FSM}		20		A
P_D		308		mW
T_J, T_{stg}		-65 to +150		$^\circ\text{C}$
θ_{JA}		405		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS
I_R	$V_R=\text{Rated } V_{RRM}$
V_F	$I_F=0.7\text{A}$
V_F	$I_F=1.0\text{A}$
C_J	$V_R=4.0\text{V}, f=1.0\text{MHz}$

CMIDSH1-3		CMIDSH1-4		CMIDSH1-6		UNITS
TYP	MAX	TYP	MAX	TYP	MAX	
25	100	10	100	20	100	μA
0.41	0.45	0.43	0.52	0.48	0.58	V
0.44	0.52	0.46	0.58	0.53	0.68	V
70	-	51	-	45	-	pF

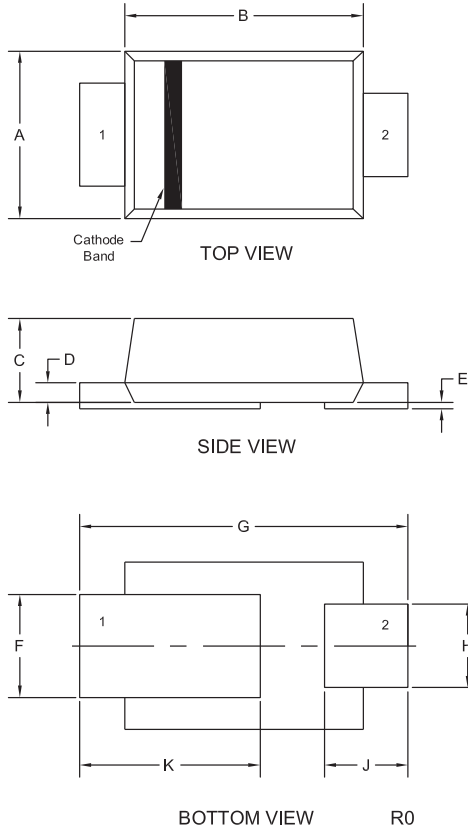
Note 1: FR-4 epoxy PCB with minimum copper pad area.

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SOD-323FL CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.047	0.055	1.20	1.40
B	0.068	0.077	1.75	1.95
C	0.021	0.030	0.55	0.75
D	0.004	0.008	0.10	0.20
E	-	0.004	-	0.10
F	0.025	0.038	0.65	0.95
G	0.090	0.107	2.30	2.70
H	0.017	0.030	0.45	0.75
J	0.015	0.032	0.40	0.80
K	0.045	0.061	1.15	1.55

SOD-323FL (REV:R0)

LEAD CODE:

- 1) Cathode
- 2) Anode

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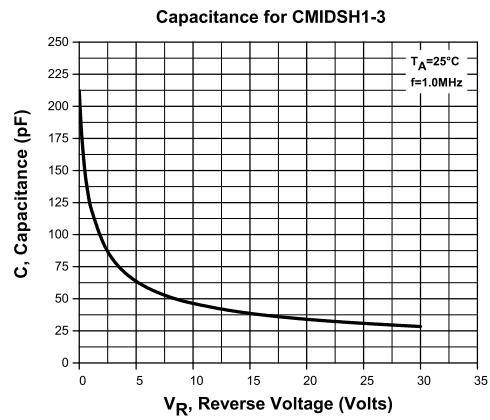
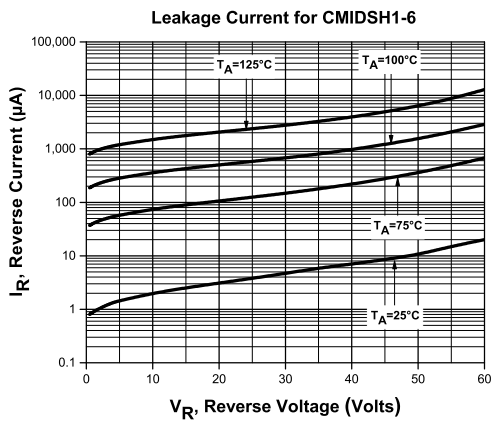
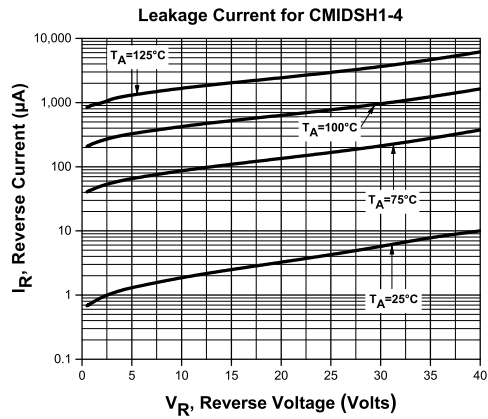
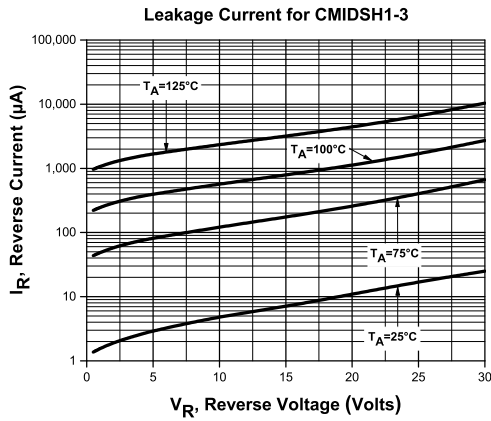
R3 (10-November 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



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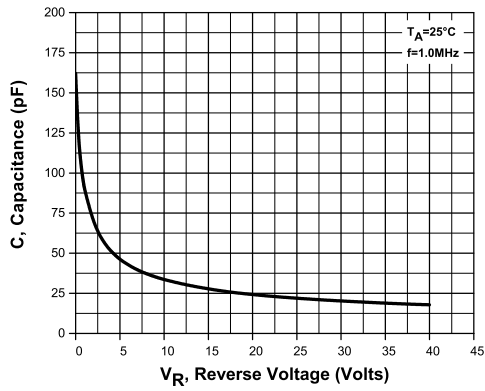
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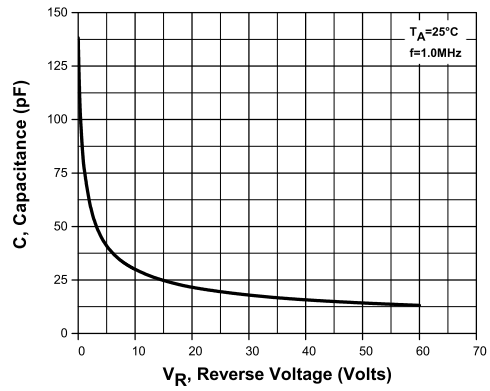


TYPICAL ELECTRICAL CHARACTERISTICS

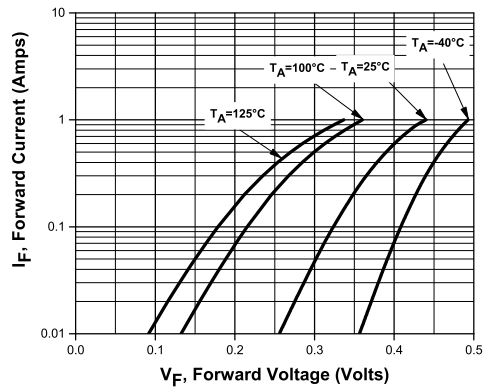
Capacitance for CMIDSH1-4



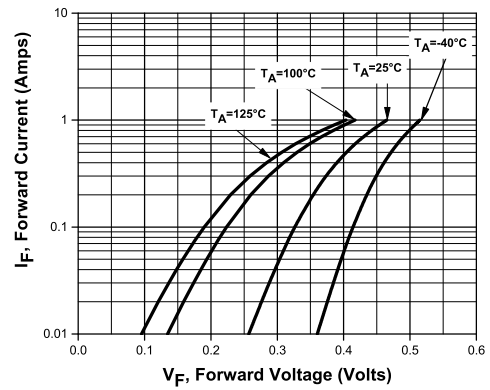
Capacitance for CMIDSH1-6



Forward Voltage for CMIDSH1-3



Forward Voltage for CMIDSH1-4



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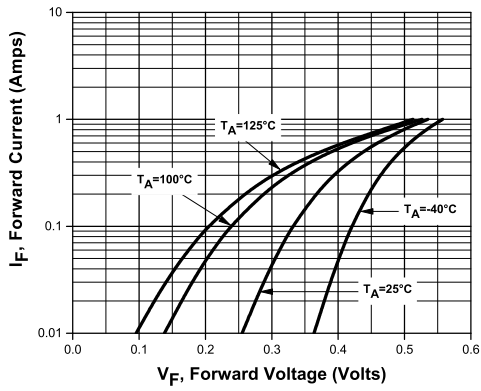
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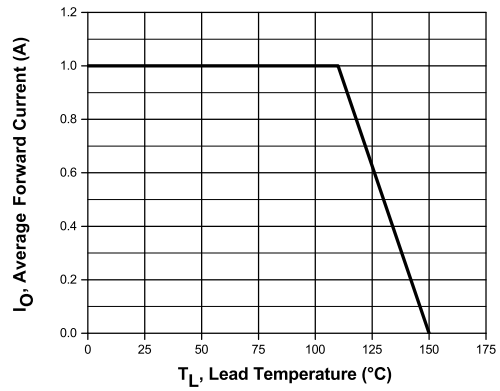
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TYPICAL ELECTRICAL CHARACTERISTICS

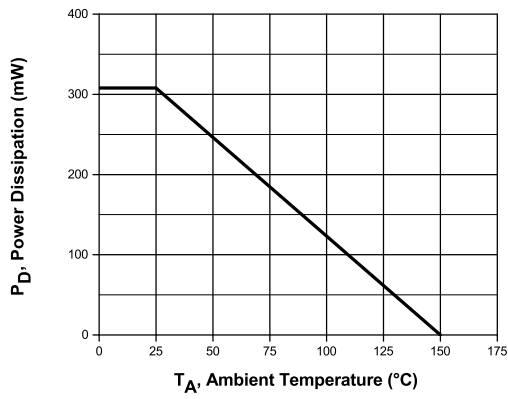
Forward Voltage for CMDSH1-6



Current Derating



Power Derating



R3 (10-November 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).

CONTACT US

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