



**THE DATASHEET OF  
CMIDSH1-3 TR PBFREE**



CMIDSH1-3  
 CMIDSH1-4  
 CMIDSH1-6

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



SOD-323FL CASE

**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)

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

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

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



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**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

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		$^\circ\text{C}$
$\theta_{JA}$		405		$^\circ\text{C/W}$

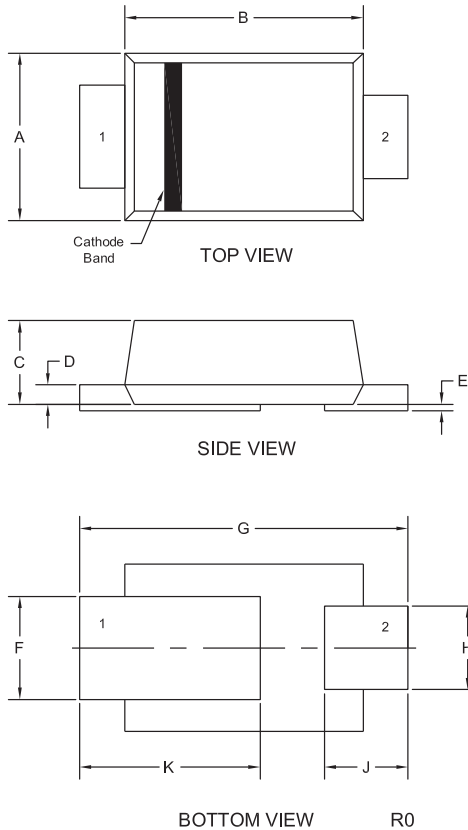
SYMBOL	CMIDSH1-3		CMIDSH1-4		CMIDSH1-6		UNITS
	TYP	MAX	TYP	MAX	TYP	MAX	
$I_R$	25	100	10	100	20	100	$\mu\text{A}$
$V_F$	0.41	0.45	0.43	0.52	0.48	0.58	V
$V_F$	0.44	0.52	0.46	0.58	0.53	0.68	V
$C_J$	70	-	51	-	45	-	pF

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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

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

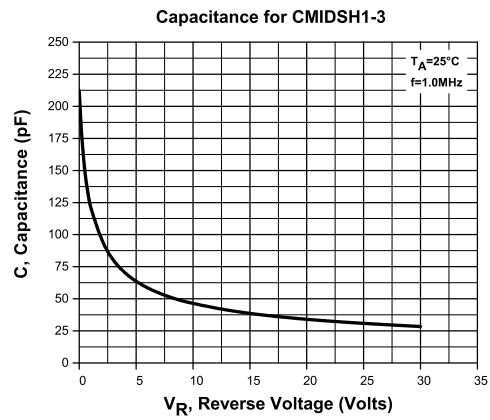
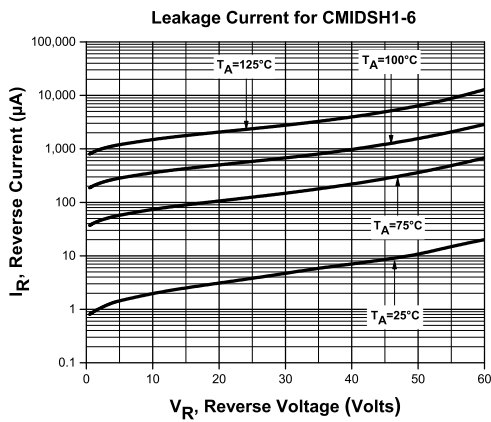
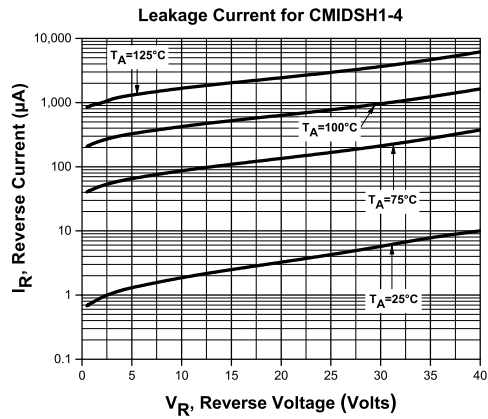
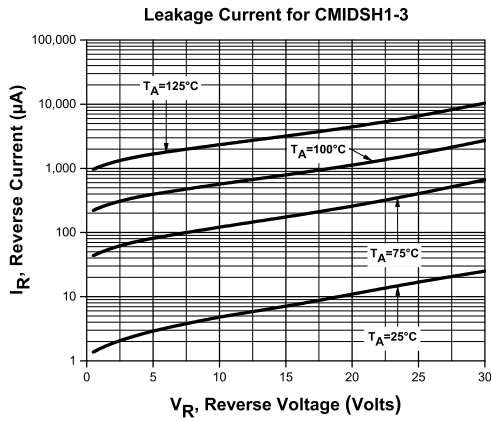
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TYPICAL ELECTRICAL CHARACTERISTICS



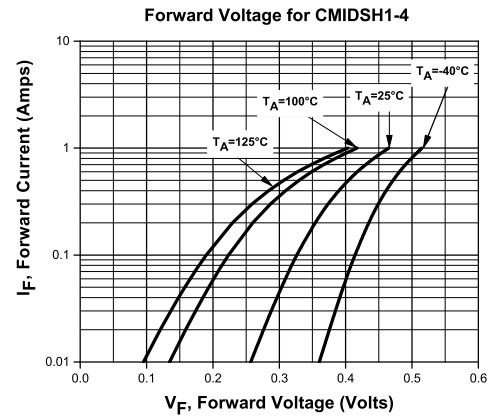
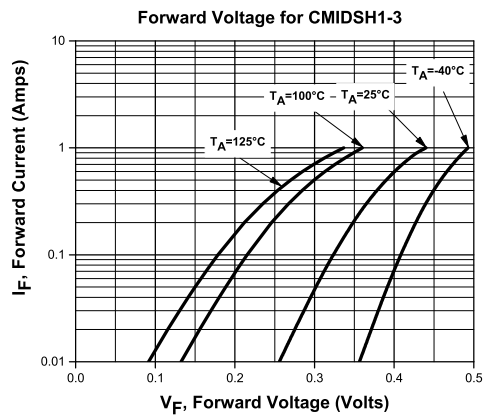
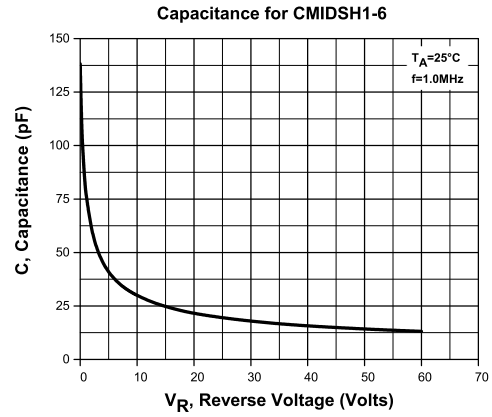
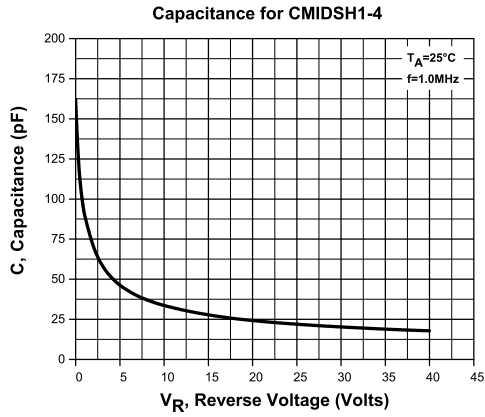
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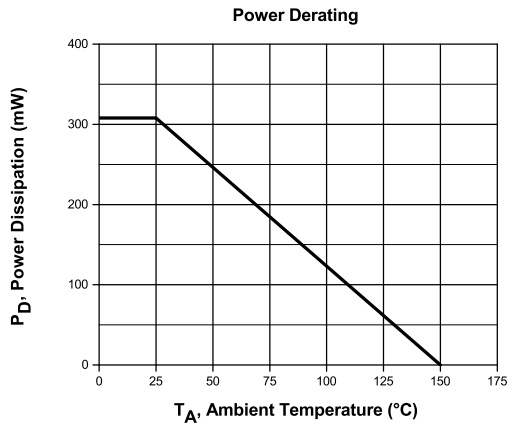
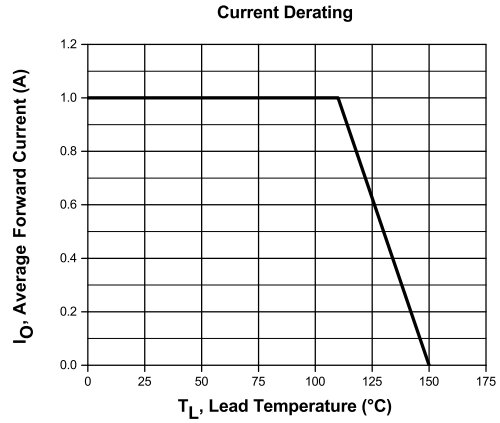
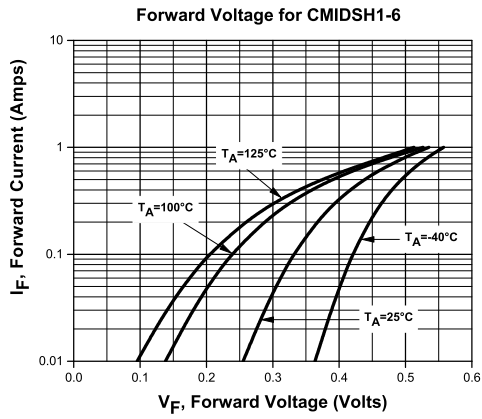
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### PRODUCT SUPPORT

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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