

CMDSH-3

**SURFACE MOUNT SILICON  
SCHOTTKY DIODE**



**SOD-323 CASE**



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

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMDSH-3 is a silicon Schottky diode, manufactured in an SOD-323 surface mount package, designed for fast switching applications requiring a low forward voltage drop.

**MARKING CODE: S1**

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	30	V
Average Forward Current	$I_O$	100	mA
Peak Forward Surge Current, $t_p=10\text{ms}$	$I_{FSM}$	750	mA
Power Dissipation	$P_D$	250	mW
Power Dissipation ( $T_L=25^{\circ}\text{C}$ )	$P_D$	833	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$	500	$^{\circ}\text{C/W}$
Thermal Resistance	$\theta_{JL}$	150	$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=25\text{V}$			1.0	$\mu\text{A}$
$BV_R$	$I_F=100\mu\text{A}$	30			V
$V_F$	$I_F=2.0\text{mA}$		0.29		V
$V_F$	$I_F=15\text{mA}$		0.37		V
$V_F$	$I_F=50\text{mA}$		0.44	0.55	V
$V_F$	$I_F=100\text{mA}$		0.51	0.80	V
$C_J$	$V_R=1.0\text{V}, f=1.0\text{MHz}$		7.0		pF

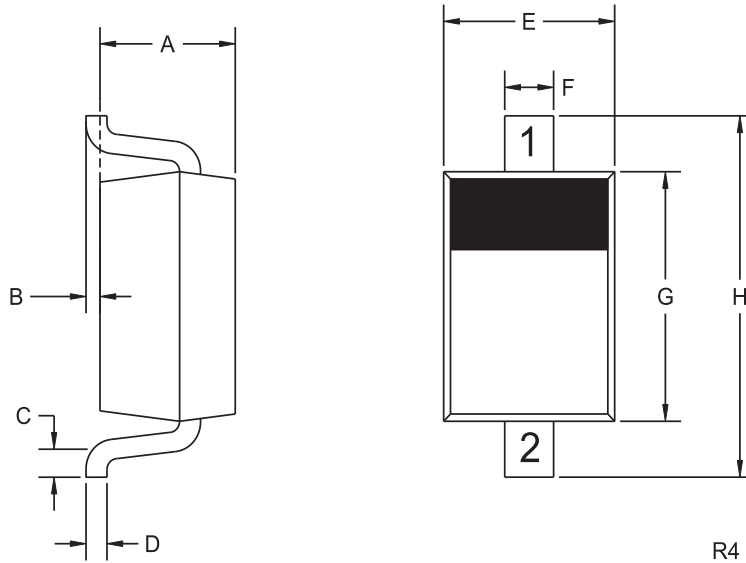
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SOD-323 CASE - MECHANICAL OUTLINE



R4

LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: S1

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.031	0.039	0.80	1.00
B	0.000	0.004	0.00	0.10
C	0.008	-	0.20	-
D	0.004	0.007	0.11	0.19
E	0.045	0.053	1.15	1.35
F	-	0.014	-	0.35
G	0.063	0.071	1.60	1.80
H	0.094	0.102	2.40	2.60

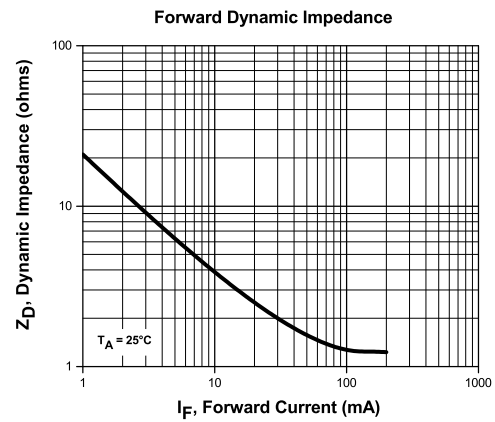
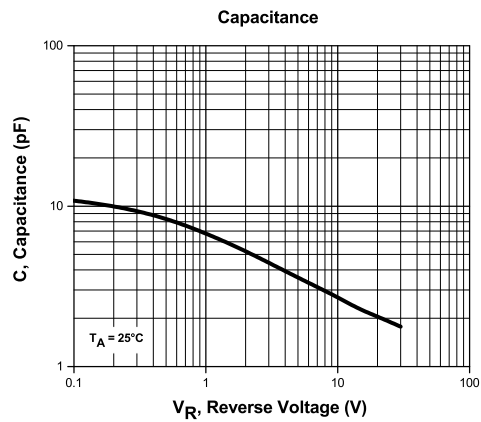
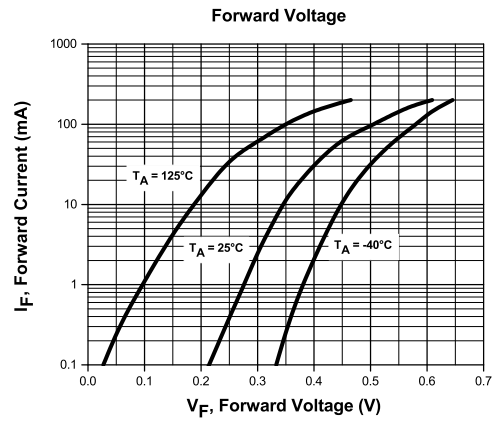
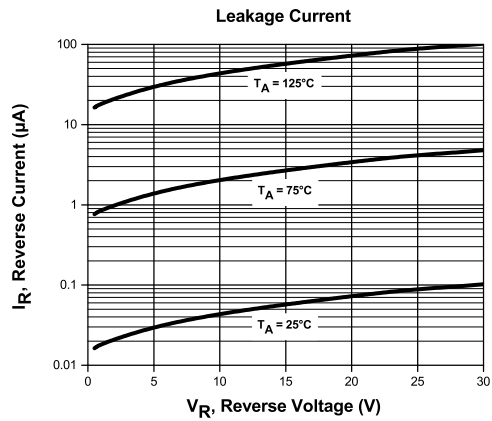
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TYPICAL ELECTRICAL CHARACTERISTICS



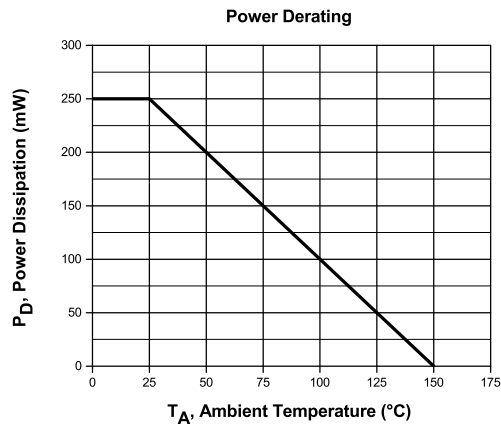
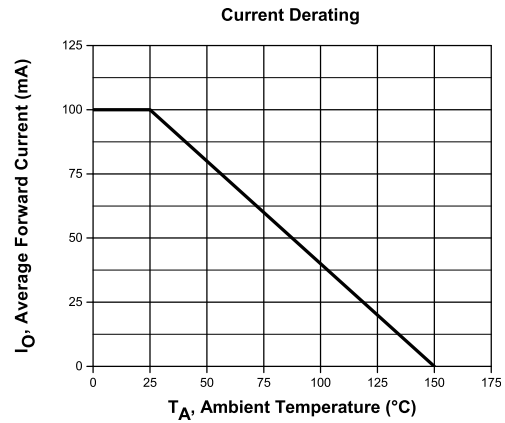
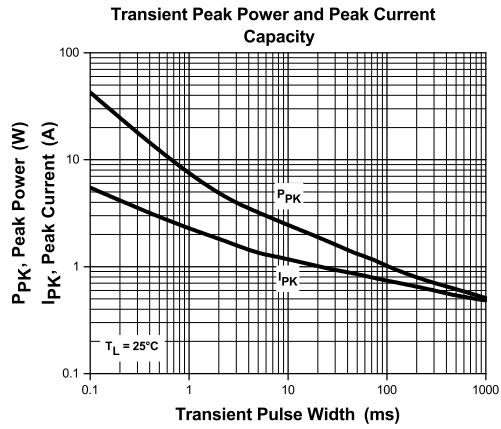
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### TYPICAL ELECTRICAL CHARACTERISTICS



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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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