

CMDSH-3

**SURFACE MOUNT SILICON
SCHOTTKY DIODE**



SOD-323 CASE



www.centrasemi.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	θ_{JA}	500	$^{\circ}\text{C/W}$
Thermal Resistance	θ_{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	μA
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

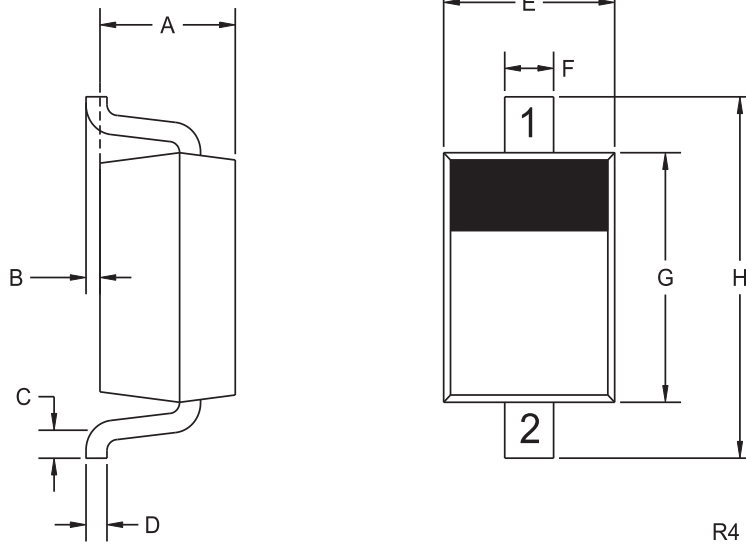
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SOD-323 CASE - MECHANICAL OUTLINE



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

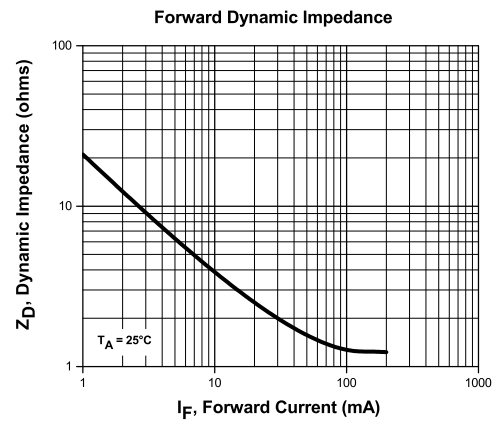
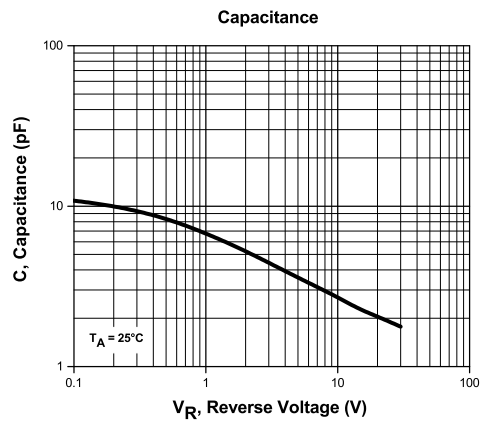
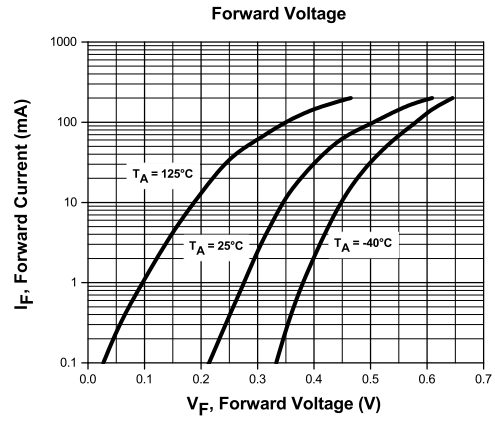
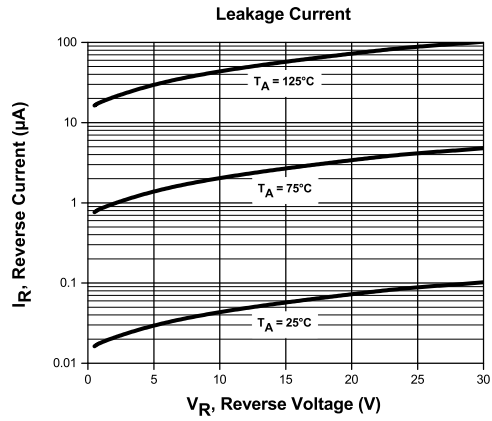
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TYPICAL ELECTRICAL CHARACTERISTICS



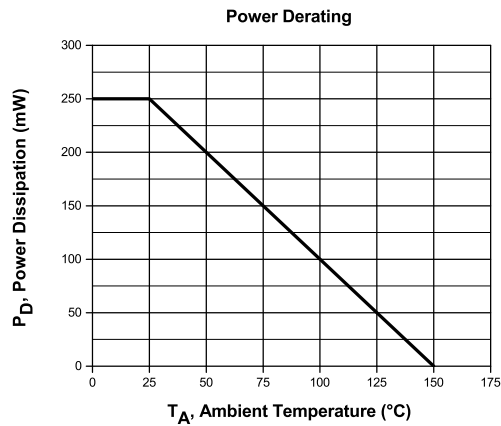
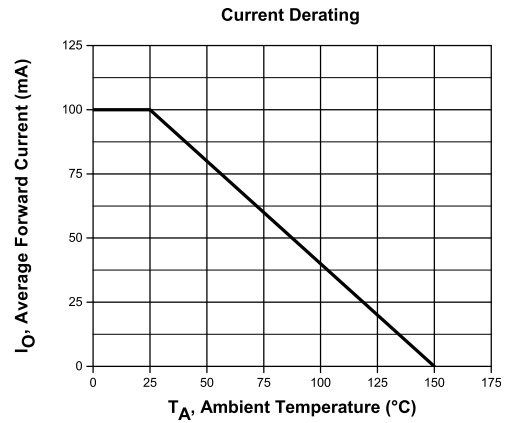
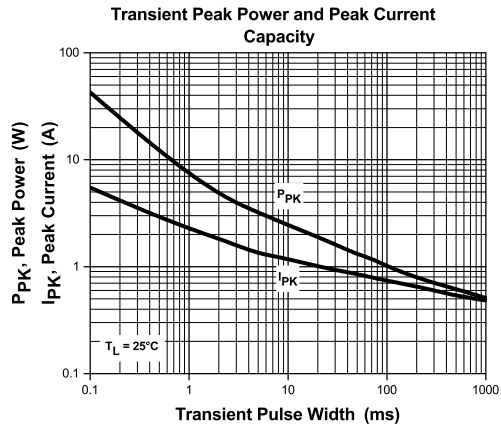
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TYPICAL ELECTRICAL CHARACTERISTICS



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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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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