

CMDSH05-45
SURFACE MOUNT SILICON
LOW V_F
SCHOTTKY DIODE



SOD-323 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMDSH05-45 is a 45 volt Schottky diode packaged in a space saving surface mount SOD-323 case. This device has been designed for applications requiring a low forward voltage drop.

MARKING CODE: 45C

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

Peak Repetitive Reverse Voltage
 Continuous Forward Current
 Peak Repetitive Forward Current, $t_p \leq 1.0\text{ms}$
 Peak Forward Surge Current, $t_p = 8.0\text{ms}$
 Power Dissipation
 Operating and Storage Junction Temperature
 Thermal Resistance

SYMBOL

V_{RRM} 45
 I_F 500
 I_{FRM} 3.5
 I_{FSM} 10
 P_D 250
 T_J, T_{stg} -65 to +150
 θ_{JA} 500

UNITS

V
 mA
 A
 A
 mW
 $^{\circ}\text{C}$
 $^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=30\text{V}$		60	100	μA
I_R	$V_R=30\text{V}, T_A=85^{\circ}\text{C}$		2.5		mA
I_R	$V_R=30\text{V}, T_A=100^{\circ}\text{C}$		6.0		mA
BV_R	$I_R=500\mu\text{A}$	45			V
V_F	$I_F=100\mu\text{A}$			0.13	V
V_F	$I_F=1.0\text{mA}$			0.21	V
V_F	$I_F=10\text{mA}$			0.27	V
V_F	$I_F=100\text{mA}$			0.35	V
V_F	$I_F=500\text{mA}$			0.47	V
C_J	$V_R=1.0\text{V}, f=1.0\text{MHz}$			50	pF

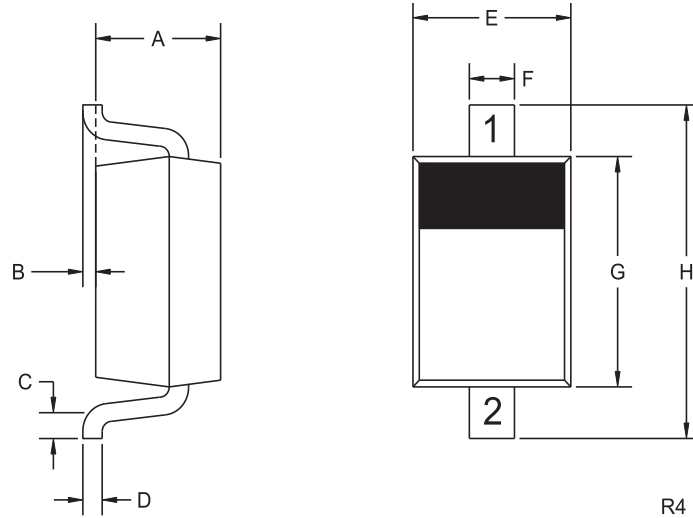
R1 (30-September 2015)

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SOD-323 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: 45C

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

SOD-323 (REV: R4)

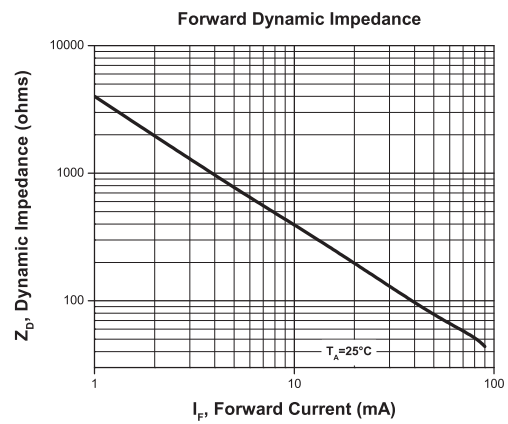
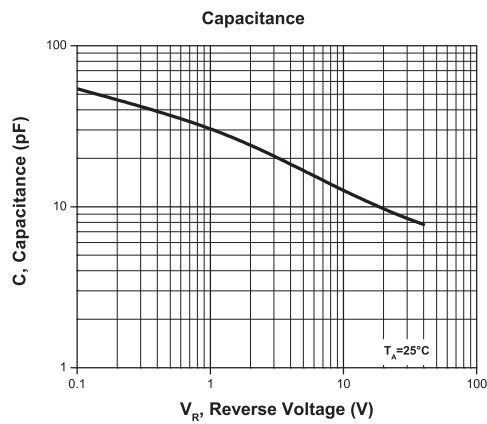
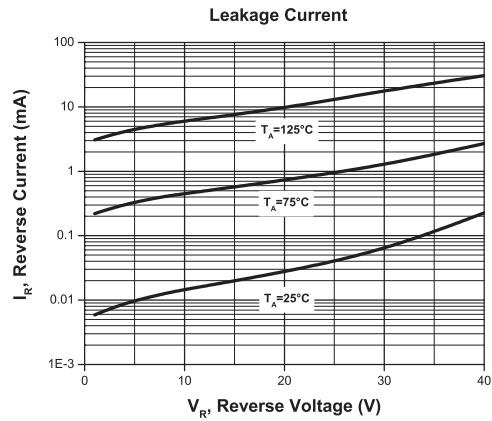
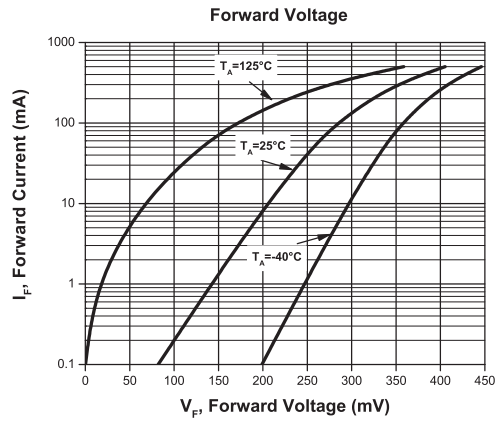
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TYPICAL ELECTRICAL CHARACTERISTICS



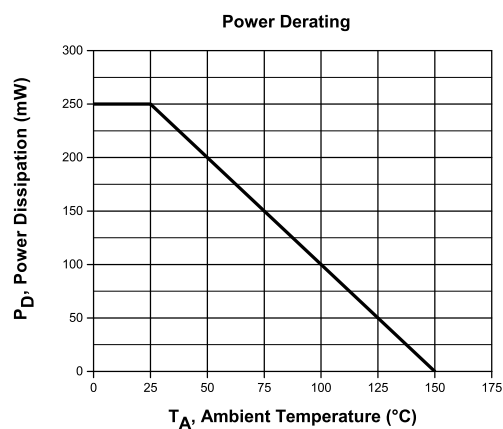
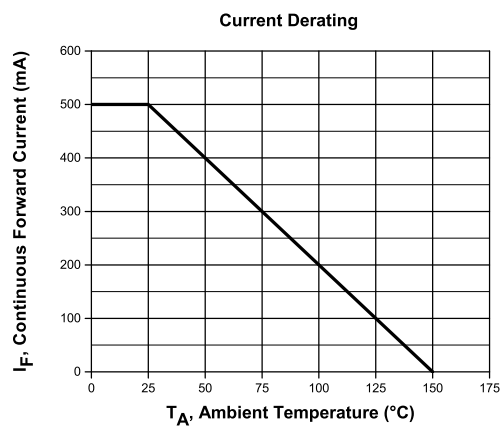
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TYPICAL ELECTRICAL CHARACTERISTICS



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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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