CMDSH05-45

SURFACE MOUNT SILICON
LOW V_F
SCHOTTKY DIODE



SOD-323 CASE

Central Semiconductor Corp.

www.centralsemi.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°C)	**SYMBOL**		**UNITS**
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Continuous Forward Current	I_F	500	mA
Peak Repetitive Forward Current, tp≤1.0ms	I_{FRM}	3.5	A
Peak Forward Surge Current, tp=8.0ms	I_{FSM}	10	A
Power Dissipation	P_D	250	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	500	°C/W

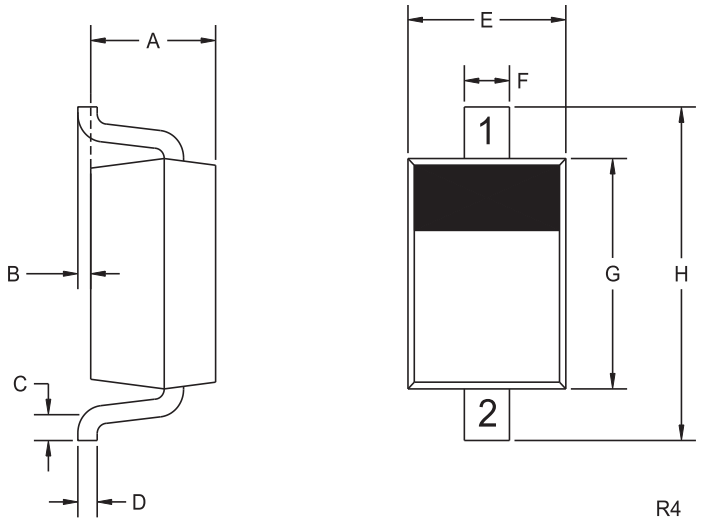
ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNITS**
I_R	V_R=30V		60	100	μA
I_R	V_R=30V, T_A=85°C		2.5		mA
I_R	V_R=30V, T_A=100°C		6.0		mA
BV_R	I_R=500μA	45			V
V_F	I_F=100μA			0.13	V
V_F	I_F=1.0mA			0.21	V
V_F	I_F=10mA			0.27	V
V_F	I_F=100mA			0.35	V
V_F	I_F=500mA			0.47	V
C_J	V_R=1.0V, f=1.0MHz			50	pF

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SOD-323 CASE - MECHANICAL OUTLINE



R4

LEAD CODE:
1) Cathode
2) Anode

MARKING CODE: 45C

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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

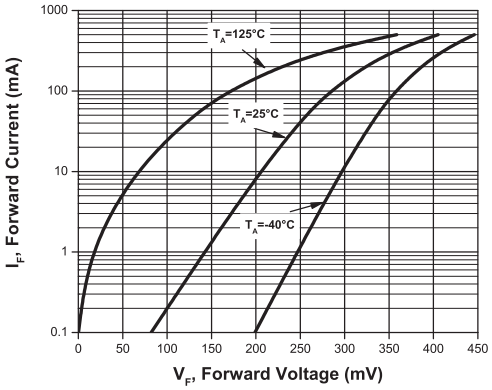
SOD-323 (REV: R4)

CMDSH05-45

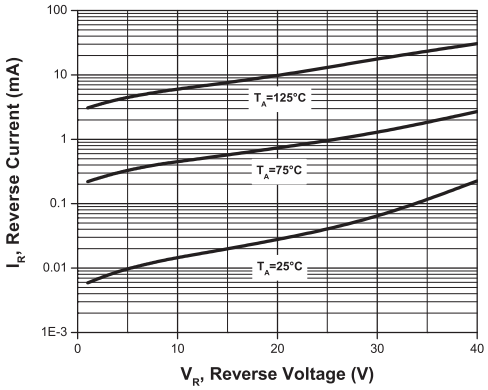
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TYPICAL ELECTRICAL CHARACTERISTICS

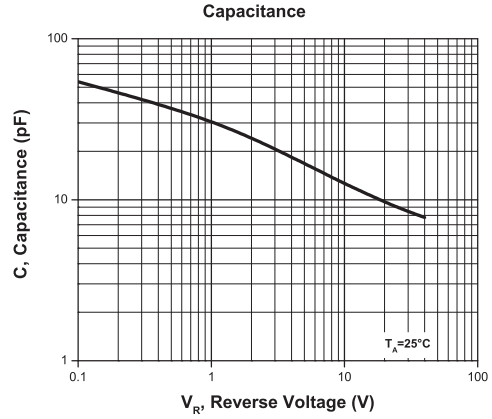
Forward Voltage



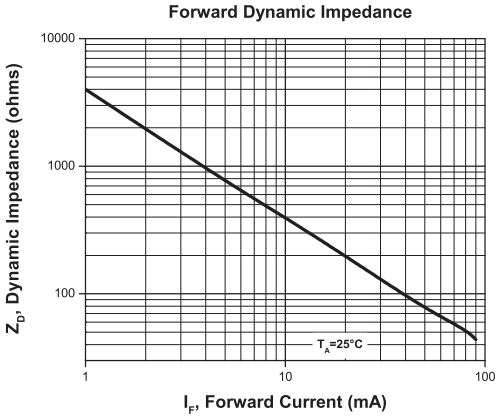
Leakage Current



Capacitance



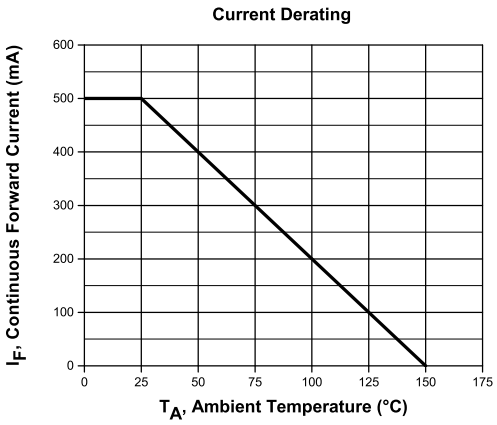
Forward Dynamic Impedance

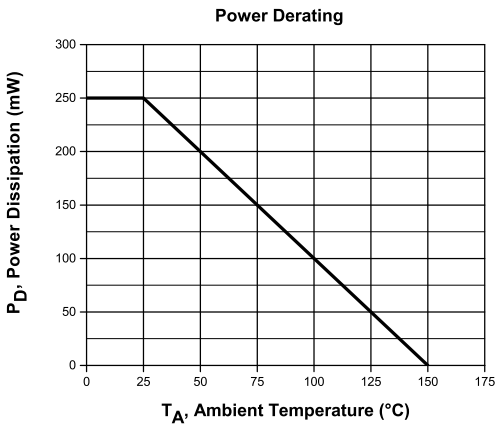


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TYPICAL ELECTRICAL CHARACTERISTICS





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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