

CMDSH05-45F
SURFACE MOUNT SILICON
LOW V_F
SCHOTTKY DIODE



SOD-323F CASE

DESCRIPTION:

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

MARKING: 45F

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

	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
Continuous Forward Current	I_F	500	mA
Peak Repetitive Forward Current, $t_p \leq 1.0\text{ms}$	I_{FRM}	3.5	A
Peak Forward Surge Current, $t_p = 8.0\text{ms}$	I_{FSM}	10	A
Power Dissipation	P_D	225	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance	Θ_{JA}	556	$^\circ\text{C/W}$

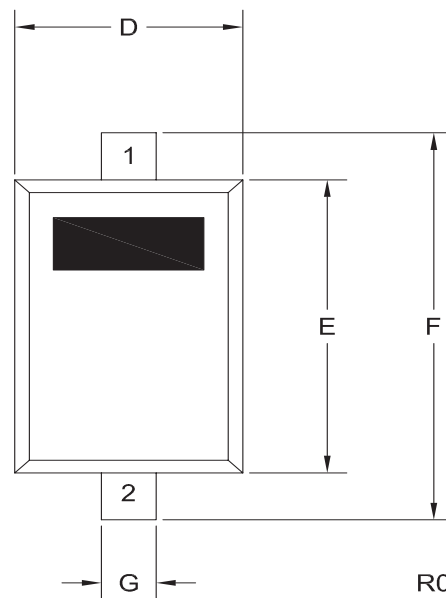
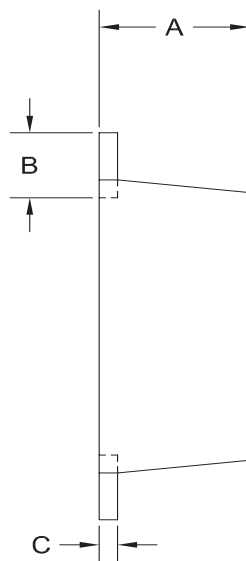
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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

R0 (22-August 2025)

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SOD-323F CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

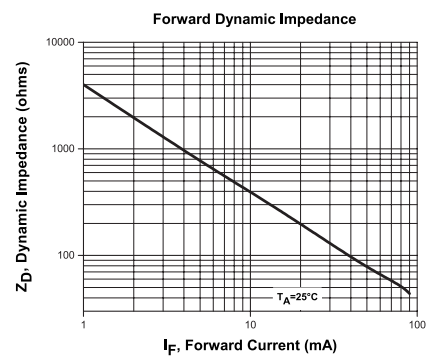
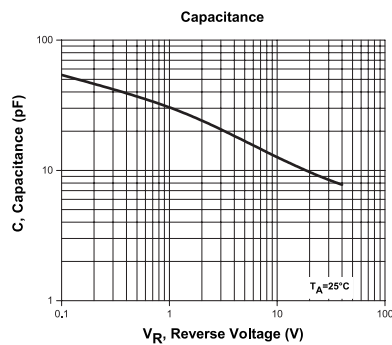
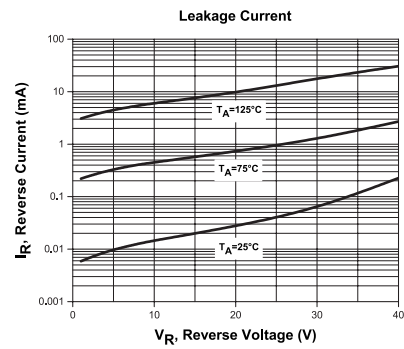
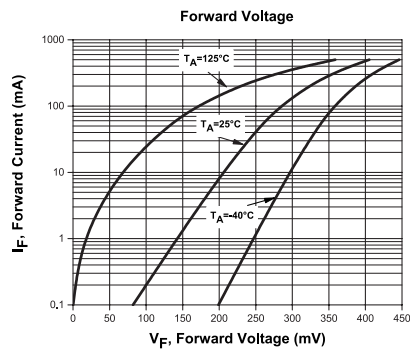
MARKING CODE: 45F

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.028	0.035	0.70	0.90
B	0.012	-	0.30	-
C	0.002	0.006	0.05	0.15
D	0.045	0.053	1.15	1.35
E	0.069	0.077	1.75	1.95
F	0.091	0.106	2.30	2.70
G	0.010	0.014	0.25	0.35
SOD-323F (REV:R1)				

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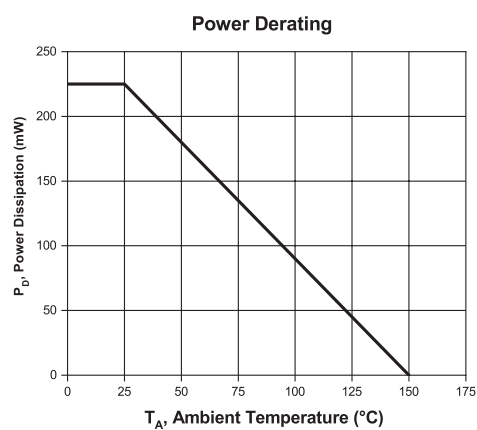
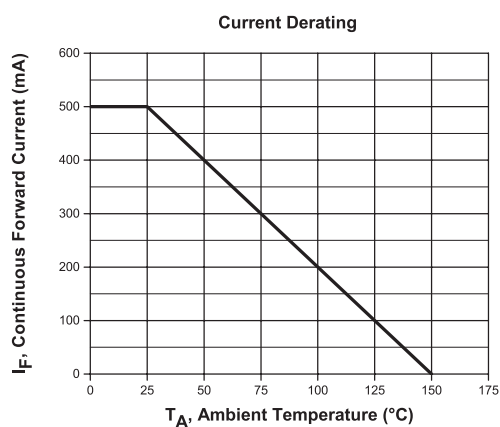
TYPICAL ELECTRICAL CHARACTERISTICS



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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).

CONTACT US

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