

CMSSH-3E CMSSH-3CE
CMSSH-3AE CMSSH-3SE

**ENHANCED SPECIFICATION
SURFACE MOUNT SILICON
SCHOTTKY DIODES**



SOT-323 CASE



www.centra-semi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMSSH-3E series devices are enhanced versions of the CMSSH-3 series of silicon Schottky diodes in an SOT-323 surface mount package.

FEATURED ENHANCED SPECIFICATIONS:

- ♦ I_F from 100mA MAX to 200mA MAX
- ♦ BV_R from 30V MIN to 40V MIN
- ♦ V_F from 1.0V MAX to 0.8V MAX

CMSSH-3E: SINGLE
CMSSH-3AE: DUAL, COMMON ANODE
CMSSH-3CE: DUAL, COMMON CATHODE
CMSSH-3SE: DUAL, IN SERIES

MARKING CODE: 31E
MARKING CODE: 3AE
MARKING CODE: 3CE
MARKING CODE: 3SE

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

- ♦ **Peak Repetitive Reverse Voltage**
- ♦ **Continuous Forward Current**
 - Peak Repetitive Forward Current
 - Peak Forward Surge Current, $t_p=10\text{ms}$
 - Power Dissipation
 - Operating and Storage Junction Temperature
 - Thermal Resistance

SYMBOL

SYMBOL		UNITS
V_{RRM}	40	V
I_F	200	mA
I_{FRM}	350	mA
I_{FSM}	750	mA
P_D	250	mW
T_J, T_{stg}	-65 to +150	$^\circ\text{C}$
Θ_{JA}	500	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_R	$V_R=25\text{V}$		90	500	nA
I_R	$V_R=25\text{V}, T_A=100^\circ\text{C}$		25	100	μA
♦ BV_R	$I_R=100\mu\text{A}$	40	50		V
V_F	$I_F=2.0\text{mA}$		0.29	0.33	V
♦ V_F	$I_F=15\text{mA}$		0.37	0.42	V
♦ V_F	$I_F=100\text{mA}$		0.51	0.80	V
♦♦ V_F	$I_F=200\text{mA}$		0.65	1.0	V
C_J	$V_R=1.0\text{V}, f=1.0\text{MHz}$		7.0		pF
t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$			5.0	ns

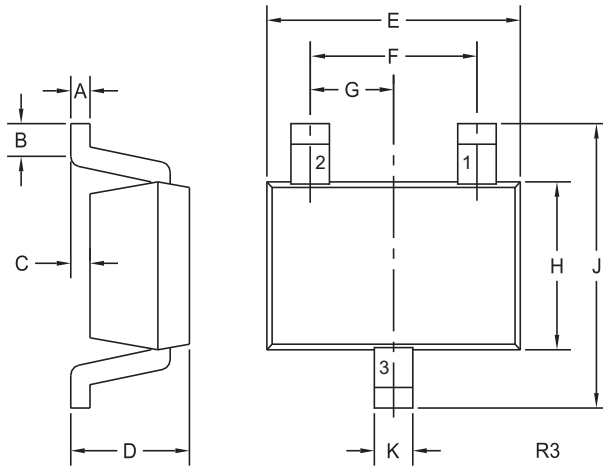
- ♦ Enhanced specification.
- ♦♦ Additional Enhanced specification.

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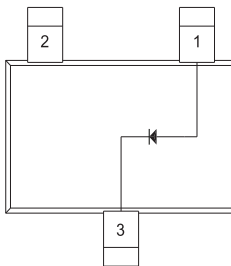
SOT-323 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.008	0.05	0.20
B	0.004	-	0.10	-
C	-	0.004	-	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.045	0.053	1.15	1.35
J	0.079	0.087	2.00	2.20
K	0.008	0.016	0.20	0.40

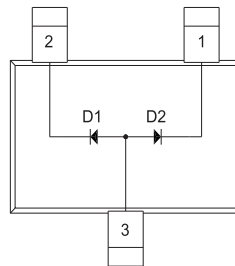
SOT-323 (REV: R3)

PIN CONFIGURATIONS



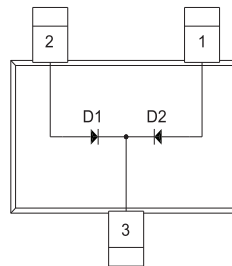
CMSSH-3E
LEAD CODE:
1) Anode
2) NC
3) Cathode

MARKING CODE: 31E



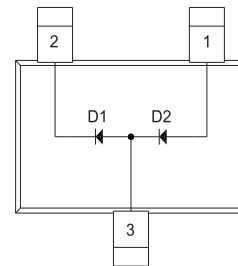
CMSSH-3AE
LEAD CODE:
1) Cathode D2
2) Cathode D1
3) Anode D1, D2

MARKING CODE: 3AE



CMSSH-3CE
LEAD CODE:
1) Anode D2
2) Anode D1
3) Cathode D1, D2

MARKING CODE: 3CE



CMSSH-3SE
LEAD CODE:
1) Anode D2
2) Cathode D1
3) Anode D1, Cathode D2

MARKING CODE: 3SE

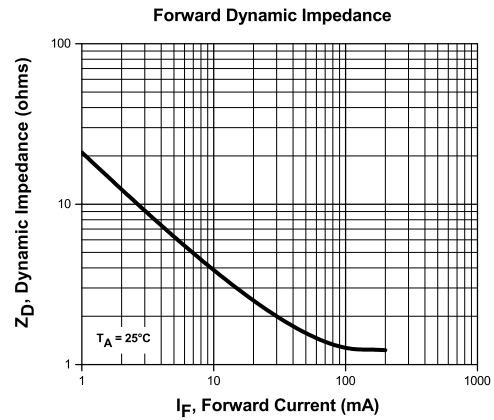
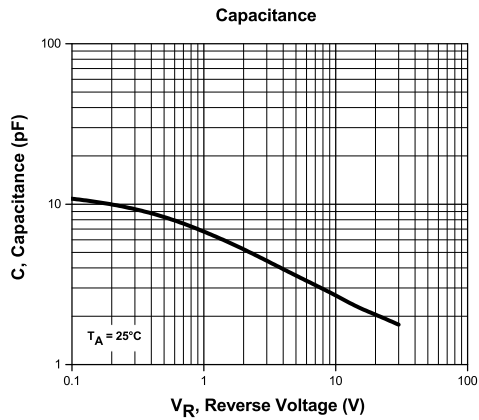
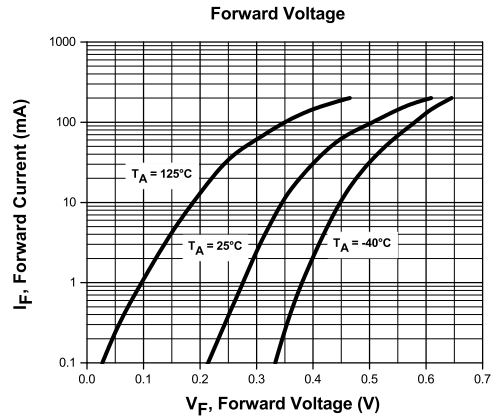
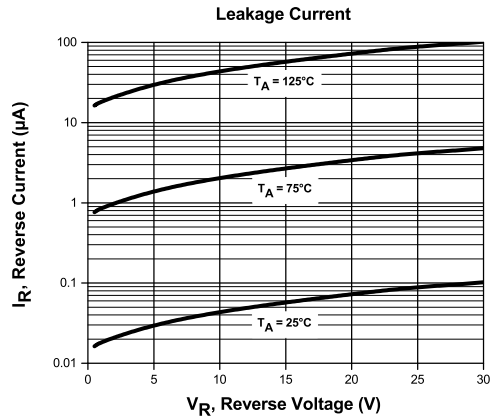
R3 (16-February 2016)

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TYPICAL ELECTRICAL CHARACTERISTICS



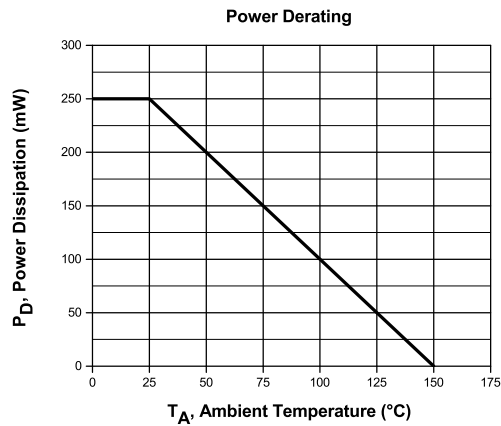
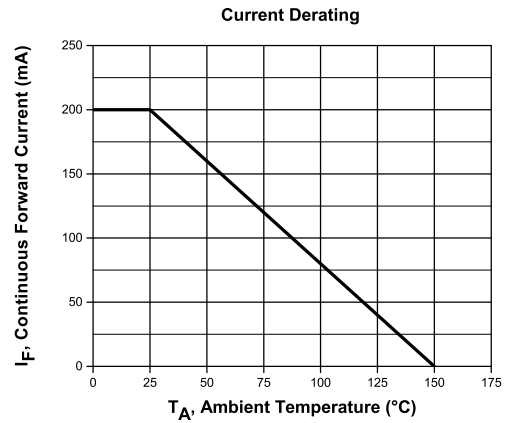
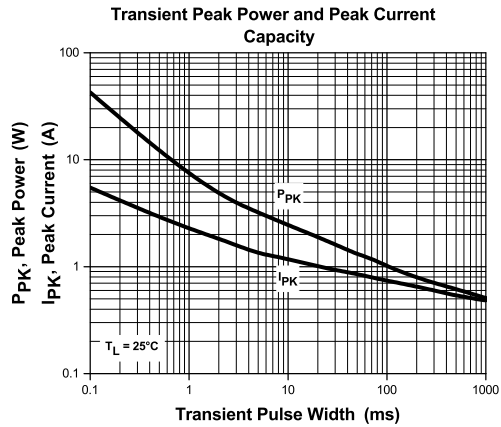
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TYPICAL ELECTRICAL CHARACTERISTICS



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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).

CONTACT US

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