



**THE DATASHEET OF  
CMSD2838 TR**



CMSD2836  
CMSD2838

**SURFACE MOUNT  
DUAL SILICON  
SWITCHING DIODES**



[www.centrasemi.com](http://www.centrasemi.com)

**SUPERmini™**



**SOT-323 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSD2836 and CMSD2838 are ultra-high speed silicon switching diodes manufactured by the epitaxial planar process, in an epoxy molded SUPERmini™ surface mount package, designed for high speed switching applications.

The following configurations are available:

**CMSD2836** DUAL, COMMON ANODE  
**CMSD2838** DUAL, COMMON CATHODE

**MARKING CODE: A2C**  
**MARKING CODE: A6C**

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

Peak Repetitive Reverse Voltage  
Average Forward Current  
Peak Forward Current,  $t_p=1.0s$   
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

$V_{RRM}$  75  
 $I_O$  200  
 $I_{FM}$  300  
 $P_D$  275  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  455

**UNITS**

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

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

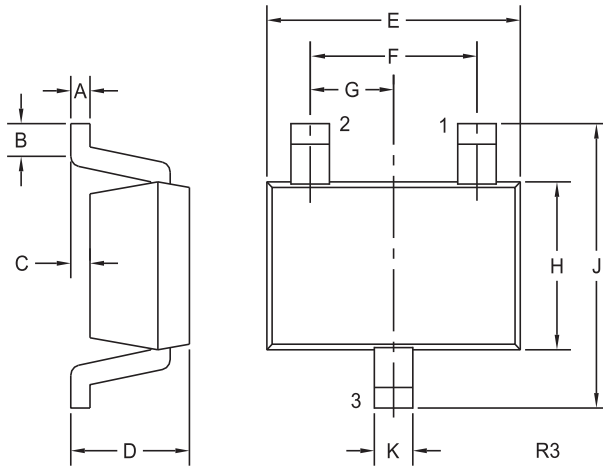
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_R$	$V_R=50V$			100	nA
$BV_R$	$I_R=100\mu A$	75			V
$V_F$	$I_F=10mA$			1.0	V
$V_F$	$I_F=50mA$			1.0	V
$V_F$	$I_F=100mA$			1.2	V
$C_T$	$V_R=0, f=1.0MHz$		1.5	4.0	pF
$t_{rr}$	$I_R=I_F=10mA, I_{rr}=1.0mA, R_L=100\Omega$			4.0	ns

CMSD2836  
CMSD2838

**SURFACE MOUNT  
DUAL SILICON  
SWITCHING DIODES**



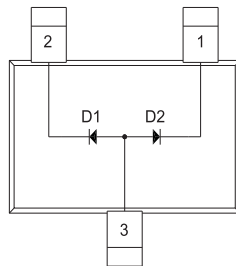
**SOT-323 CASE - MECHANICAL OUTLINE**



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**

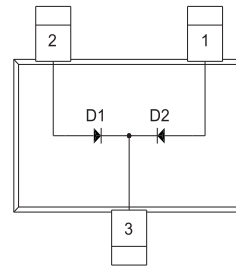


**CMSD2836**

**LEAD CODE:**

- 1) Cathode D2
- 2) Cathode D1
- 3) Anode D1, D2

**MARKING CODE: A2C**



**CMSD2838**

**LEAD CODE:**

- 1) Anode D2
- 2) Anode D1
- 3) Cathode D1, D2

**MARKING CODE: A6C**

R4 (8-February 2010)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> 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

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### 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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### CONTACT US

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