



**THE DATASHEET OF  
CMPD2838E TR**



CMPD2836E  
CMPD2838E

**ENHANCED SPECIFICATION  
SURFACE MOUNT  
DUAL, SILICON  
SWITCHING DIODES**



www.centrasemi.com



SOT-23 CASE

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD2836E and CMPD2838E are Enhanced versions of the CMPD2836 and CMPD2838 High Speed Switching Diodes. These devices are manufactured by the epitaxial planar process, in an epoxy molded surface mount SOT-23 package, designed for high speed switching applications.

**FEATURED ENHANCED SPECIFICATIONS:**

- ◆  $BV_R$  from 75V min to 120V min.
- ◆  $V_F$  from 1.2V max to 1.0V max.

The following configurations are available:

CMPD2836E DUAL, COMMON ANODE  
CMPD2838E DUAL, COMMON CATHODE

**MARKING CODE: CA2E**

**MARKING CODE: CA6E**

**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**

$V_{RRM}$	120
$I_O$	200
$I_{FM}$	300
$P_D$	350
$T_J, T_{stg}$	-65 to +150
$\Theta_{JA}$	357

**UNITS**

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

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
◆ $I_R$	$V_R=80V$			100	nA
◆ $BV_R$	$I_R=100\mu\text{A}$	120	150		V
◆ $V_F$	$I_F=10\text{mA}$		0.72	0.85	V
◆ $V_F$	$I_F=50\text{mA}$		0.84	0.95	V
◆ $V_F$	$I_F=100\text{mA}$		0.92	1.0	V
$C_T$	$V_R=0, f=1.0\text{MHz}$		1.5	4.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$			4.0	ns

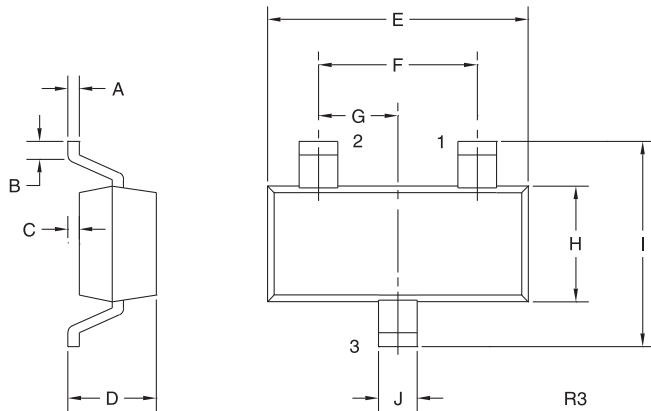
◆ Enhanced specification

CMPD2836E  
 CMPD2838E



**ENHANCED SPECIFICATION  
 SURFACE MOUNT  
 DUAL, SILICON  
 SWITCHING DIODES**

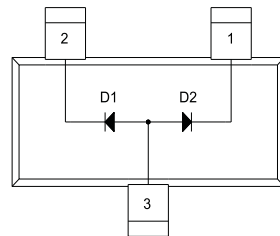
**SOT-23 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

**PIN CONFIGURATIONS**

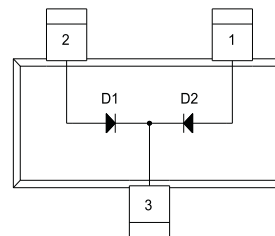


**CMPD2836E**

**LEAD CODE:**

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

**MARKING CODE: CA2E**



**CMPD2838E**

**LEAD CODE:**

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

**MARKING CODE: CA6E**

R3 (25-January 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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