CMPD2836E CMPD2838E

## **ENHANCED SPECIFICATION**

SURFACE MOUNT DUAL, SILICON SWITCHING DIODES





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### **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<sub>R</sub> from 75V min to 120V min.
- ♦ V<sub>F</sub> from 1.2V max to 1.0V max.

The following configurations are available:

CMPD2836E DUAL, COMMON ANODE MARKING CODE: CA2E CMPD2838E DUAL, COMMON CATHODE MARKING CODE: CA6E

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
♦ Peak Repetitive Reverse Voltage	$v_{RRM}$	120	V
Average Forward Current	IO	200	mA
Peak Forward Current, tp=1.0s	I <sub>FM</sub>	300	mA
Power Dissipation	PD	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{JA}$	357	°C/W

## **ELECTRICAL CHARACTERISTICS PER DIODE**: (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
♦ I <sub>R</sub>	V <sub>R</sub> =80V			100	nA
♦ BV <sub>R</sub>	I <sub>R</sub> =100μA	120	150		V
♦ v <sub>F</sub>	I <sub>F</sub> =10mA		0.72	0.85	V
♦ v <sub>F</sub>	I <sub>F</sub> =50mA		0.84	0.95	V
♦ v <sub>F</sub>	I <sub>F</sub> =100mA		0.92	1.0	V
$c_T$	V <sub>R</sub> =0, f=1.0MHz		1.5	4.0	pF
t <sub>rr</sub>	$I_R = I_F = 10$ mA, $R_L = 100\Omega$ , Rec. to 1.0mA			4.0	ns

♦ Enhanced specification

R3 (25-January 2010)

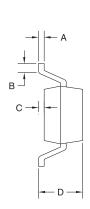
CMPD2836E CMPD2838E

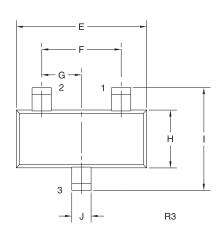
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## **SOT-23 CASE - MECHANICAL OUTLINE**

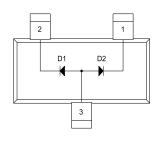




INIO				
INCHES		MILLIMETERS		
MIN	MAX	MIN	MAX	
0.003	0.007	0.08	0.18	
0.006	-	0.15	-	
-	0.005	-	0.13	
0.035	0.043	0.89	1.09	
0.110	0.120	2.80	3.05	
0.075		1.90		
0.037		0.95		
0.047	0.055	1.19	1.40	
0.083	0.098	2.10	2.49	
0.014	0.020	0.35	0.50	
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SOT-23 (REV: R3)

#### **PIN CONFIGURATIONS**



# 2 1 D1 D2

### 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)

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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 (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

#### 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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