

#### SURFACE MOUNT SILICON DUAL, ISOLATED HIGH SPEED SWITCHING DIODES



## Central Semiconductor Corp.

www.centralsemi.com

### DESCRIPTION:

The CENTRAL SEMICONDUCTOR BAS28 consists of two electrically isolated ultra-high speed silicon switching diodes manufactured by the epitaxial planar process and packaged in an epoxy molded SOT-143 surface mount case. This device is designed for high speed switching applications.

MARKING CODE: A61 or JTW

MAXIMUM RATINGS: (T <sub>A</sub> =25°C) Continuous Reverse Voltage	SYMBOL V <sub>R</sub>	75	UNITS
Peak Repetitive Reverse Voltage	VRRM	85	V
Continuous Forward Current	١ <sub>F</sub>	250	mA
Peak Repetitive Forward Current	IFRM	500	mA
Peak Forward Surge Current, tp=1.0µs	IFSM	4.0	А
Peak Forward Surge Current, tp=1.0ms	IFSM	2.0	А
Peak Forward Surge Current, tp=1.0s	IFSM	1.0	А
Power Dissipation	PD	350	mW
Operating and Storage Junction Temperature	Т <sub>Ј</sub> , Т <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{JA}$	357	°C/W

#### ELECTRICAL CHARACTERISTICS PER DIODE: (TA=25°C unless otherwise noted)

symbol I <sub>R</sub>	TEST CONDITIONS V <sub>R</sub> =25V, T <sub>A</sub> =150°C	MIN	<b>MAX</b> 30	<b>UNITS</b> μΑ
I <sub>R</sub>	V <sub>R</sub> =75V		1.0	μA
I <sub>R</sub>	V <sub>R</sub> =75V, T <sub>A</sub> =150°C		50	μA
VF	I <sub>F</sub> =1.0mA		715	mV
VF	I <sub>F</sub> =10mA		855	mV
VF	I <sub>F</sub> =50mA		1.00	V
VF	I <sub>F</sub> =150mA		1.25	V
СЈ	V <sub>R</sub> =0, f=1.0MHz		2.0	pF
t <sub>rr</sub>	$I_F=I_R=10$ mA, $I_{rr}=1.0$ mA, $R_L=100\Omega$		6.0	ns
Qs	I <sub>F</sub> =10mA, V <sub>R</sub> =5.0V, R <sub>L</sub> =500Ω		45	pC
V <sub>FR</sub>	I <sub>F</sub> =10mA, t <sub>r</sub> =20ns		1.75	V

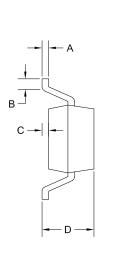
R8 (19-September 2018)

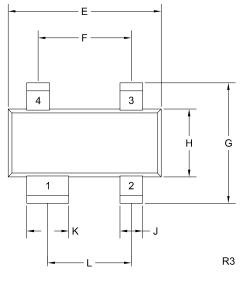




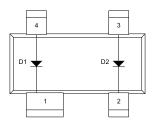
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#### SOT-143 CASE - MECHANICAL OUTLINE





**PIN CONFIGURATION** 



LEAD CODE:

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

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DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
A	0.003	0.008	0.08	0.20		
В	0.006	-	0.15	-		
С	0.000	0.005	0.01	0.13		
D	0.035	0.045	0.89	1.14		
E	0.110	0.120	2.79	3.04		
F	0.075		1.90			
G	0.083	0.102	2.10	2.60		
Н	0.047	0.055	1.19	1.40		
J	0.012	0.020	0.30	0.50		
K	0.030	0.037	0.76	0.93		
L	0.067		1.70			
SOT-143 (REV: R3)						

R8 (19-September 2018)

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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

#### DESIGNER SUPPORT/SERVICES

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

- Free guick 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

· Custom product packing

Custom bar coding for shipments

- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits
- · Custom product and package development

#### REQUESTING PRODUCT PLATING

- If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when 1. 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

#### **Corporate Headquarters & Customer Support Team**

Central Semiconductor Corp. 145 Adams Avenue Hauppauge, NY 11788 USA Main Tel: (631) 435-1110 Main Fax: (631) 435-1824 Support Team Fax: (631) 435-3388 www.centralsemi.com

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