## BAS28

# SURFACE MOUNT DUAL, ISOLATED HIGH SPEED SILICON SWITCHING DIODES



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# **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)	SYMBOL		UNITS
Continuous Reverse Voltage	$V_{R}$	75	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	85	V
Continuous Forward Current	ΙF	250	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	500	mA
Peak Forward Surge Current, tp=1.0µs	IFSM	4.0	Α
Peak Forward Surge Current, tp=1.0ms	IFSM	2.0	Α
Peak Forward Surge Current, tp=1.0s	IFSM	1.0	Α
Power Dissipation	$P_{D}$	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	ΘΙΔ	357	°C/W

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

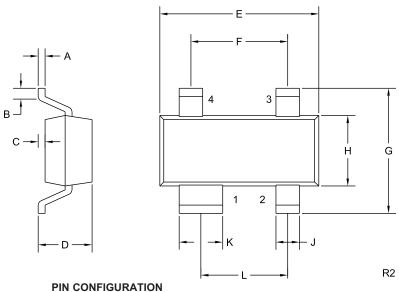
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{R}$	V <sub>R</sub> =25V, T <sub>A</sub> =150°C		30	μΑ
$I_{R}$	V <sub>R</sub> =75V		1.0	μΑ
$I_{R}$	V <sub>R</sub> =75V, T <sub>A</sub> =150°C		50	μΑ
$V_{F}$	I <sub>F</sub> =1.0mA		715	mV
$V_{F}$	I <sub>F</sub> =10mA		855	mV
VF	I <sub>F</sub> =50mA		1.00	V
$V_{F}$	I <sub>F</sub> =150mA		1.25	V
$C_T$	$V_R=0$ , 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
$Q_S$	$I_F$ =10mA, $V_R$ =5.0V, $R_L$ =500 $\Omega$		45	рС
$V_{FR}$	I <sub>F</sub> =10mA, t <sub>r</sub> =20ns		1.75	V

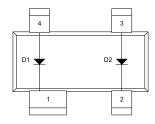
### BAS28

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



### **SOT-143 CASE - MECHANICAL OUTLINE**





## **LEAD CODE:**

- 1) CATHODE D1
- 2) CATHODE D2
- 3) ANODE D2
- 4) ANODE D1

SYMBOL MIN MAX MIN MAX Α 0.003 0.006 0.08 В 0.006 0.15 0.005 0.13 D 0.045 1.14 0.110 0.120 2.79 3.04 F 0.075 1.90 G 0.098 2.50 Н 0.047 0.055 1.19 1.40 0.014 0.020 0.36 0.50 0.030 0.037 0.76 0.93

0.067

DIMENSIONS INCHES

> 1.70 SOT-143 (REV: R2)

MILLIMETERS

MARKING CODE: A61 or JTW

R7 (20-October 2010)

## **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

#### **CONTACT US**

#### Corporate Headquarters & Customer Support Team

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