# ENHANCED SPECIFICATION SURFACE MOUNT SILICON SCHOTTKY DIODES





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#### **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMUD6263E series devices are Enhanced High Voltage silicon Schottky diodes, epoxy molded in an SOT-523 surface mount package, designed for low current fast switching applications requiring a low forward voltage drop.

#### **ENHANCED SPECIFICATIONS:**

- ♦ I<sub>F</sub> = 70mA (from 15mA)
- ♦ I<sub>FSM</sub> = 100mA (from 50mA)

The following configurations are available:

CMUD6263ESINGLEMARKING CODE: C63CMUD6263AEDUAL, COMMON ANODEMARKING CODE: C6ACMUD6263CEDUAL, COMMON CATHODEMARKING CODE: C6CCMUD6263SEDUAL, IN SERIESMARKING CODE: C6S

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	70	V
♦ Continuous Forward Current	I <sub>F</sub>	70	mA
♦ Peak Forward Surge Current, tp=1.0s	<sup>I</sup> FSM	100	mA
Power Dissipation	$P_{D}$	250	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{JA}$	500	°C/W

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

	,				
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
♦ I <sub>R</sub>	V <sub>R</sub> =50V		10	100	nA
$BV_R$	I <sub>R</sub> =10μA	70			V
• • V <sub>F</sub>	I <sub>F</sub> =100μA		290	320	mV
• • V <sub>F</sub>	I <sub>F</sub> =500μA		345	380	mV
♦ V <sub>F</sub>	I <sub>F</sub> =1.0mA		380	400	mV
• • V <sub>F</sub>	I <sub>F</sub> =10mA		700	750	mV
• • V <sub>F</sub>	I <sub>F</sub> =15mA		830	900	mV
CJ	$V_R=0$ , f=1.0MHz			2.0	pF
t <sub>rr</sub>	$I_R = I_F = 10 \text{mA}$ , $I_{rr} = 1.0 \text{mA}$ , $R_L = 100 \Omega$			5.0	ns

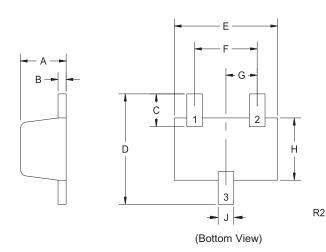
- ♦ Enhanced specification
- ♦ Additional Enhanced specification

R3 (11-December 2015)

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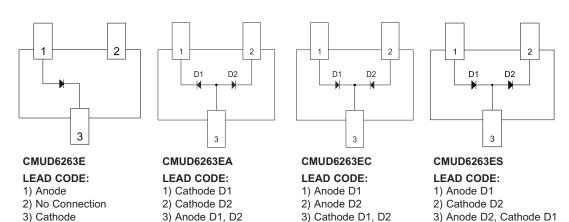
### **SOT-523 CASE - MECHANICAL OUTLINE**



DIMENSIONS							
	INCHES		MILLIMETERS				
SYMBOL	MIN	MAX	MIN	MAX			
Α	0.023	0.031	0.58	0.78			
В	0.002	0.008	0.04	0.20			
С	0.013	0.021	0.34	0.54			
D	0.059	0.067	1.50	1.70			
E	0.059	0.067	1.50	1.70			
F	0.035	0.043	0.90	1.10			
G	0.020		0.50				
Н	0.031	0.039	0.78	0.98			
J	0.010	0.014	0.25	0.35			

SOT-523 (REV: R2)

#### **PIN CONFIGURATIONS**



MARKING CODE: C6A

MARKING CODE: C6C MARKING CODE: 6CS

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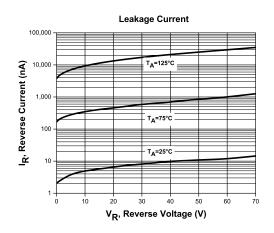
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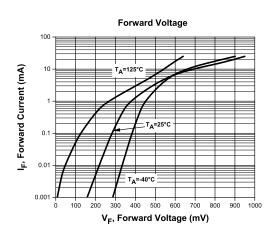
**MARKING CODE: C63** 

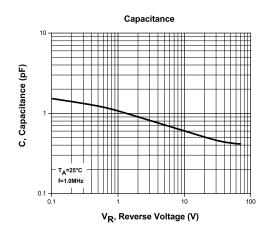


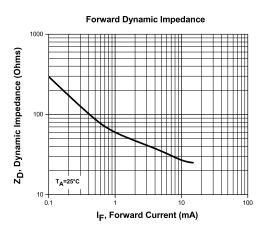


### TYPICAL ELECTRICAL CHARACTERISTICS









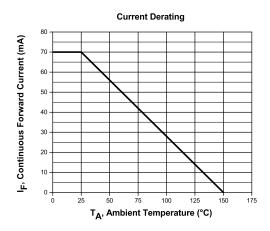
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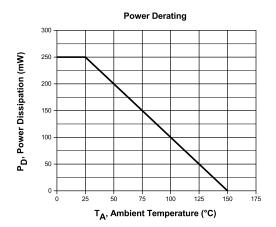
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### TYPICAL ELECTRICAL CHARACTERISTICS





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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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