#### CZT2955 PNP CZT3055 NPN

# SURFACE MOUNT SILICON COMPLEMENTARY POWER TRANSISTORS





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#### **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CZT2955 and CZT3055 are surface mount epoxy molded complementary silicon transistors manufactured by the epitaxial base process, designed for surface mounted power amplifier applications up to 6.0 amps.

**MARKING: FULL PART NUMBER** 

POWER ™ 223	central	
	SOT-223 CASE	

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	VCER	70	V
Collector-Emitter Voltage	$V_{CEO}$	60	V
Emitter-Base Voltage	$V_{EBO}$	7.0	V
Continuous Collector Current	IC	6.0	Α
Continuous Base Current	Ι <sub>Β</sub>	3.0	Α
Power Dissipation	$P_{D}$	2.0	W
Operating and Storage Junction Temperature	T <sub>J,</sub> T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{\sf JA}$	62.5	°C/W
ELECTRICAL CHARACTERISTICS: (TA=25°C u	unless otherwise n	oted)	
SYMBOL TEST CONDITIONS	MIN	MAX	UNITS
I <sub>CEO</sub> V <sub>CE</sub> =30V		700	μΑ
ICEV VCE=100V, VER=1.5V		1.0	mA

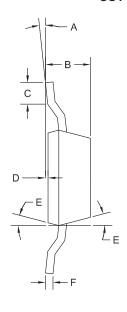
SYMBOL ICEO	TEST CONDITIONS V <sub>CE</sub> =30V	MIN	<b>MAX</b> 700	<b>UNITS</b> μΑ
ICEV	V <sub>CE</sub> =100V, V <sub>EB</sub> =1.5V		1.0	mA
I <sub>EBO</sub>	V <sub>EB</sub> =7.0V		5.0	mA
BVCER	$I_C$ =30mA, $R_{BE}$ =100 $\Omega$	70		V
<b>BVCEO</b>	I <sub>C</sub> =30mA	60		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =4.0A, I <sub>B</sub> =400mA		1.1	V
V <sub>BE(ON)</sub>	$V_{CE}$ =4.0V, $I_{C}$ =4.0A		1.5	V
hFE	$V_{CE}$ =4.0V, $I_{C}$ =4.0A	20	70	
$h_{FE}$	$V_{CE}$ =4.0V, $I_{C}$ =6.0A	5.0		
$f_{T}$	$V_{CE}$ =10V, $I_{C}$ =500mA, f=1.0MHz	2.5		MHz

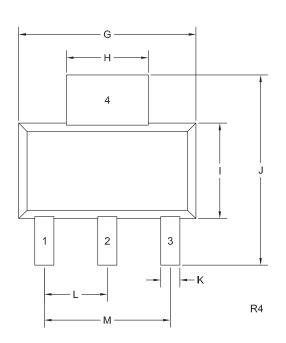
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#### **SOT-223 CASE - MECHANICAL OUTLINE**





#### LEAD CODE:

- 1) Base 2) Collector 3) Emitter
- 4) Collector

### MARKING:

**FULL PART NUMBER** 

DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
Α	0°	10°	0°	10°		
В	0.059	0.071	1.50	1.80		
С	0.018		0.45			
D	0.000	0.004	0.00	0.10		
Е	10°		10°			
F	0.009	0.014	0.23	0.35		
G	0.248	0.264	6.30	6.70		
I	0.114	0.122	2.90	3.10		
	0.130	0.146	3.30	3.70		
J	0.264	0.287	6.70	7.30		
K	0.024	0.033	0.60	0.85		
L	0.091		2.	30		
М	0.181		4.	60		

SOT-223 (REV: R4)

R5 (3-October 2017)



#### **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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