

2N3055 NPN  
MJ2955 PNP

**COMPLEMENTARY  
SILICON POWER TRANSISTORS**



**TO-3 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N3055 and MJ2955 are complementary silicon power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case, designed for general purpose switching and amplifier applications.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$ )

Collector-Base Voltage
Collector-Emitter Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Continuous Base Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL		UNITS
$V_{CB0}$	100	V
$V_{CER}$	70	V
$V_{CEO}$	60	V
$V_{EBO}$	7.0	V
$I_C$	15	A
$I_B$	7.0	A
$P_D$	115	W
$T_J, T_{stg}$	-65 to +200	$^\circ\text{C}$
$\Theta_{JC}$	1.52	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CEV}$	$V_{CE}=100V, V_{EB}=1.5V$		1.0	mA
$I_{CEV}$	$V_{CE}=100V, V_{EB}=1.5V, T_C=150^\circ\text{C}$		5.0	mA
$I_{CEO}$	$V_{CE}=30V$		0.7	mA
$I_{EBO}$	$V_{EB}=7.0V$		5.0	mA
$BV_{CEO}$	$I_C=200\text{mA}$	60		V
$BV_{CER}$	$I_C=200\text{mA}, R_{BE}=100\Omega$	70		V
$V_{CE(SAT)}$	$I_C=4.0A, I_B=400\text{mA}$		1.1	V
$V_{CE(SAT)}$	$I_C=10A, I_B=3.3A$		3.0	V
$V_{BE(ON)}$	$V_{CE}=4.0V, I_C=4.0A$		1.5	V
$h_{FE}$	$V_{CE}=4.0V, I_C=4.0A$	20	70	
$h_{FE}$	$V_{CE}=4.0V, I_C=10A$	5.0		
$h_{fe}$	$V_{CE}=4.0V, I_C=1.0A, f=1.0\text{kHz}$	15	120	
$f_T$	$V_{CE}=10V, I_C=0.5A, f=1.0\text{MHz}$	2.5		MHz
$f_{hfe}$	$V_{CE}=4.0V, I_C=1.0A, f=1.0\text{kHz}$	10		kHz
$I_{s/b}$	$V_{CE}=40V, t=1.0\text{s}$	2.87		A

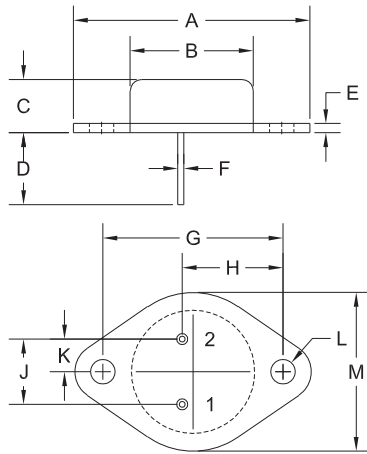
R1 (26-July 2013)

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TO-3 CASE - MECHANICAL OUTLINE



R2

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

LEAD CODE:

- 1) Base
- 2) Emitter
- Case) Collector

MARKING:

FULL PART NUMBER

R1 (26-July 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### 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

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### 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).

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### CONTACT US

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