

2N5954 2N5955 2N5956 PNP  
2N6372 2N6373 2N6374 NPN

**COMPLEMENTARY SILICON  
POWER TRANSISTORS**



**TO-66 CASE**



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**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N5954 and 2N6372 series devices are complementary silicon power transistors manufactured by the epitaxial base process, mounted in a hermetically sealed metal case designed for general purpose amplifier and switching applications.

**MARKING: FULL PART NUMBER**

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

Collector-Base Voltage  
Collector-Emitter 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	2N5954	2N5955	2N5956	UNITS
	2N6372	2N6373	2N6374	
$V_{CBO}$	90	70	50	V
$V_{CEV}$	90	70	50	V
$V_{CER}$	85	65	45	V
$V_{CEO}$	80	60	40	V
$V_{EBO}$		5.0		V
$I_C$		6.0		A
$I_B$		2.0		A
$P_D$		40		W
$T_J, T_{stg}$		-65 to +200		$^\circ\text{C}$
$\theta_{JC}$		4.3		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N5954		2N5955		2N5956		UNITS
		2N6372	2N6373	2N6373	2N6374	2N6374		
		MIN	MAX	MIN	MAX	MIN	MAX	
$I_{CEV}$	$V_{CE}=85\text{V}, V_{BE}=1.5\text{V}, R_{BE}=100\Omega$	-	100	-	-	-	-	$\mu\text{A}$
$I_{CEV}$	$V_{CE}=65\text{V}, V_{BE}=1.5\text{V}, R_{BE}=100\Omega$	-	-	-	100	-	-	$\mu\text{A}$
$I_{CEV}$	$V_{CE}=45\text{V}, V_{BE}=1.5\text{V}, R_{BE}=100\Omega$	-	-	-	-	-	100	$\mu\text{A}$
$I_{CEV}$	$V_{CE}=85\text{V}, V_{BE}=1.5\text{V}, R_{BE}=100\Omega, T_C=150^\circ\text{C}$	-	2.0	-	-	-	-	mA
$I_{CEV}$	$V_{CE}=65\text{V}, V_{BE}=1.5\text{V}, R_{BE}=100\Omega, T_C=150^\circ\text{C}$	-	-	-	2.0	-	-	mA
$I_{CEV}$	$V_{CE}=45\text{V}, V_{BE}=1.5\text{V}, R_{BE}=100\Omega, T_C=150^\circ\text{C}$	-	-	-	-	-	2.0	mA
$I_{CER}$	$V_{CE}=75\text{V}$	-	100	-	-	-	-	$\mu\text{A}$
$I_{CER}$	$V_{CE}=55\text{V}$	-	-	-	100	-	-	$\mu\text{A}$
$I_{CER}$	$V_{CE}=35\text{V}$	-	-	-	-	-	100	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=65\text{V}$	-	1.0	-	-	-	-	mA
$I_{CEO}$	$V_{CE}=45\text{V}$	-	-	-	1.0	-	-	mA
$I_{CEO}$	$V_{CE}=25\text{V}$	-	-	-	-	-	1.0	mA
$I_{EBO}$	$V_{BE}=5.0\text{V}$	-	0.1	-	0.1	-	0.1	mA
$BV_{CEV}$	$I_C=100\text{mA}, V_{BE}=1.5\text{V}, R_{BE}=100\Omega$	90	-	70	-	50	-	V
$BV_{CER}$	$I_C=100\text{mA}, R_{BE}=100\Omega$	85	-	65	-	45	-	V
$BV_{CEO}$	$I_C=100\text{mA}$	80	-	60	-	40	-	V

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2N5954 2N5955 2N5956 PNP  
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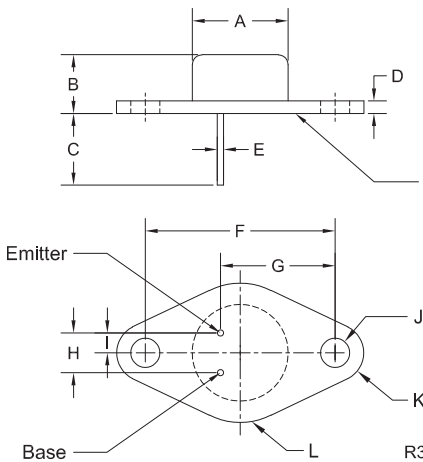


**COMPLEMENTARY SILICON  
 POWER TRANSISTORS**

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

SYMBOL	TEST CONDITIONS	2N5954 2N6372		2N5955 2N6373		2N5956 2N6374		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
$V_{CE(SAT)}$	$I_C=2.0A, I_B=200mA$	-	1.0	-	-	-	-	V
$V_{CE(SAT)}$	$I_C=2.5A, I_B=250mA$	-	-	-	1.0	-	-	V
$V_{CE(SAT)}$	$I_C=3.0A, I_B=300mA$	-	-	-	-	-	1.0	V
$V_{CE(SAT)}$	$I_C=6.0A, I_B=1.2A$ (PNP types)	-	2.0	-	2.0	-	2.0	V
$V_{BE(ON)}$	$V_{CE}=4.0V, I_C=2.0A$	-	2.0	-	-	-	-	V
$V_{BE(ON)}$	$V_{CE}=4.0V, I_C=2.5A$	-	-	-	2.0	-	-	V
$V_{BE(ON)}$	$V_{CE}=4.0V, I_C=3.0A$	-	-	-	-	-	2.0	V
$V_{BE(ON)}$	$V_{CE}=4.0V, I_C=6.0A$ (NPN types)	-	3.0	-	3.0	-	3.0	V
$h_{FE}$	$V_{CE}=4.0V, I_C=2.0A$	20	100	-	-	-	-	
$h_{FE}$	$V_{CE}=4.0V, I_C=2.5A$	-	-	20	100	-	-	
$h_{FE}$	$V_{CE}=4.0V, I_C=3.0A$	-	-	-	-	20	100	
$h_{FE}$	$V_{CE}=4.0V, I_C=6.0A$	5.0	-	5.0	-	5.0	-	
$h_{fe}$	$V_{CE}=4.0V, I_C=0.5A, f=1.0kHz$	25	-	25	-	25	-	
$f_T$	$V_{CE}=4.0V, I_C=1.0A, f=1.0MHz$ (NPN types)	4.0	-	4.0	-	4.0	-	MHz
$f_T$	$V_{CE}=4.0V, I_C=1.0A, f=1.0MHz$ (PNP types)	5.0	-	5.0	-	5.0	-	MHz

**TO-66 CASE - MECHANICAL OUTLINE**



Seating Plane:  
 The seating plane must be within 0.001" concave to 0.004" convex within 0.600" diameter from the center of the device.

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.470	0.500	11.94	12.70
B	0.250	0.340	6.35	8.64
C	0.360	-	9.14	-
D	0.050	0.075	1.27	1.91
E (DIA)	0.028	0.034	0.71	0.86
F	0.956	0.964	24.28	24.48
G	0.570	0.590	14.48	14.99
H	0.190	0.210	4.83	5.33
I	0.093	0.107	2.36	2.72
J (DIA)	0.142	0.152	3.61	3.86
K (RAD)	0.141		3.58	
L (RAD)	0.345		8.76	

TO-66 (REV:R3)

**MARKING:  
 FULL PART NUMBER**

R2 (2-September 2014)

## 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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### CONTACT US

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