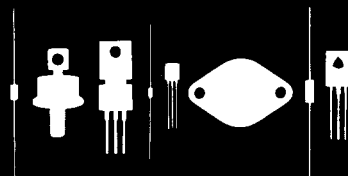


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145 Adams Avenue  
Hauppauge, New York 11788



2N6121 2N6122 2N6123 NPN  
2N6124 2N6125 2N6126 PNP  
COMPLEMENTARY SILICON  
POWER TRANSISTORS

JEDEC TO-220 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6121 series types are Complementary Silicon Power Transistors designed for power amplifier and switching applications.

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

	SYMBOL	2N6121 2N6124	2N6122 2N6125	2N6123 2N6126	UNIT
Collector-Base Current	$V_{CBO}$	45	60	80	V
Collector-Emitter Voltage	$V_{CEO}$	45	60	80	V
Emitter-Base Voltage	$V_{EBO}$	5.0	5.0	5.0	V
Collector Current	$I_C$	4.0	4.0	4.0	A
Base Current	$I_B$	1.0	1.0	1.0	A
Power Dissipation	$P_D$	40	40	40	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 TO +150			$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$	3.1	3.1	3.1	$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N6121		2N6122		2N6123		UNIT	
		2N6124	MIN	MAX	2N6125	MIN	MAX		2N6126
$BV_{CEO}$	$I_C=0.1\text{A}$		45		60		80	V	
$I_{CEV}$	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V}$			0.1		0.1		0.1	mA
$I_{CEV}$	$V_{CE}=\text{Rated } V_{CEO}, V_{BE}=1.5\text{V } (T_C=125^\circ\text{C})$			2.0		2.0		2.0	mA
$I_{CEO}$	$V_{CE}=\text{Rated } V_{CEO}$			1.0		1.0		1.0	mA
$I_{CBO}$	$V_{CE}=\text{Rated } V_{CBO}$			0.1		0.1		0.1	mA
$I_{EBO}$	$V_{BE}=5.0\text{V}$			1.0		1.0		1.0	mA
$V_{CE}(\text{SAT})$	$I_C=1.5\text{A}, I_B=0.15\text{A}$			0.6		0.6		0.6	V
$V_{CE}(\text{SAT})$	$I_C=4.0\text{A}, I_B=1.0\text{A}$			1.4		1.4		1.4	V
$V_{BE}(\text{ON})$	$V_{CE}=2.0\text{V}, I_C=1.5\text{A}$			1.2		1.2		1.2	V
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=1.5\text{A}$		25	100	25	100	20	80	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=4.0\text{A}$		10		10		7.0		
$h_{fe}$	$V_{CE}=2.0\text{V}, I_C=0.1\text{A}, f=1.0\text{kHz}$		25		25		25		
$f_T$	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}, f=1.0\text{MHz}$		2.5		2.5		2.5	MHz	

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## 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

#### Corporate Headquarters & Customer Support Team

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