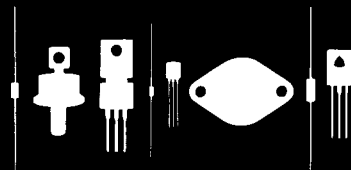


Central  
Semiconductor Corp.

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145 Adams Avenue  
Hauppauge, New York 11788



2N3641 PN3641  
2N3642 PN3642  
2N3643 PN3643

JEDEC TO-105 JEDEC TO-92

NPN SILICON SIGNAL TRANSISTORS

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3641, PN3641 Series types are Silicon NPN Small Signal Transistors designed for general purpose amplifier applications.

## MAXIMUM RATINGS (T<sub>A</sub>=25°C)

	SYMBOL	2N3641 2N3643 PN3641 PN3643	2N3642 PN3642	UNIT
Collector-Base Voltage	V <sub>CB0</sub>	60	60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	30	45	V
Emitter-Base Voltage	V <sub>EBO</sub>	5.0	5.0	V
Collector Current	I <sub>C</sub>	500	500	mA
		2N3641 2N3642 2N3643	PN3641 PN3642 PN4643	
Power Dissipation Operating and Storage	P <sub>D</sub>	350	625	mW
Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 TO +125	-55 TO +150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

SYMBOL	TEST CONDITIONS	2N3641 PN3641		2N3642 PN3642		2N3643 PN3643		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I <sub>CES</sub>	V <sub>CE</sub> =50V		50		50		50	nA
BV <sub>CB0</sub>	I <sub>C</sub> =10μA	60		60		60		V
BV <sub>CES</sub>	I <sub>C</sub> =10μA	60		60		60		V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA	30		45		30		V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	5.0		5.0		5.0		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA		0.22		0.22		0.22	V
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =150mA	40	120	40	120	100	300	
h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA	15		15		25		
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =50mA, f=100MHz	150		150		250		MHz
C <sub>ob</sub>	V <sub>CB</sub> =10V, f=140kHz		8.0		8.0		8.0	pF
G <sub>pe</sub>	V <sub>CE</sub> =15V, R <sub>G</sub> =140Ω, R <sub>L</sub> =260Ω, f=30MHz, P <sub>IN</sub> =40mW	10		10		10		dB
η	V <sub>CE</sub> =15V, R <sub>G</sub> =140Ω, R <sub>L</sub> =260Ω, f=30MHz, P <sub>IN</sub> =40mW	60		60		60		%
t <sub>on</sub>	I <sub>C</sub> =300mA, I <sub>B1</sub> =30mA		60		60		60	ns
t <sub>off</sub>	I <sub>C</sub> =300mA, I <sub>B1</sub> =I <sub>B2</sub> =30mA		150		150		150	ns

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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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**Worldwide Distributors:**  
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