

# BC327/328

## **Switching and Amplifier Applications**

- Suitable for AF-Driver stages and low power output stages
- Complement to BC337/BC338



1. Collector 2. Base 3. Emitter

# **PNP Epitaxial Silicon Transistor**

## **Absolute Maximum Ratings** T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CES</sub>	Collector-Emitter Voltage		
	: BC327	-50	V
	: BC328	-30	V
V <sub>CEO</sub>	Collector-Emitter Voltage		
	: BC327	-45	V
	: BC328	-25	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current (DC)	-800	mA
P <sub>C</sub>	Collector Power Dissipation	625	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

## Electrical Characteristics T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> =0				
	: BC327		-45			V
	: BC328		-25			V
BV <sub>CES</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -0.1mA, V <sub>BE</sub> =0				
	: BC327		-50			V
	: BC328		-30			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -10μA, I <sub>C</sub> =0	-5			V
I <sub>CES</sub>	Collector Cut-off Current					
	: BC327	$V_{CE} = -45V, V_{BE} = 0$		-2	-100	nA
	: BC328	$V_{CE} = -25V, V_{BE} = 0$		-2	-100	nA
h <sub>FE1</sub>	DC Current Gain	V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA	100		630	
h <sub>FE2</sub>		V <sub>CE</sub> = -1V, I <sub>C</sub> = -300mA	40			
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA			-0.7	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	V <sub>CE</sub> = -1V, I <sub>C</sub> = -300mA			-1.2	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA, f=20MHz		100		MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -10V, I <sub>E</sub> =0, f=1MHz		12		pF

# **h**<sub>FE</sub> Classification

Classification	16	25	40
h <sub>FE1</sub>	100 ~ 250	160 ~ 400	250 ~ 630
h <sub>FE2</sub>	60-	100-	170-

# **Typical Characteristics**

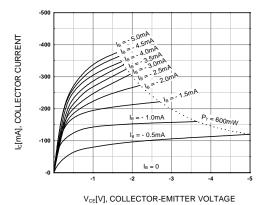
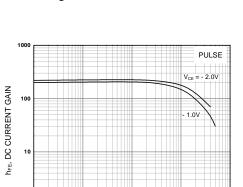


Figure 1. Static Characteristic



Ic[mA], COLLECTOR CURRENT Figure 3. DC current Gain

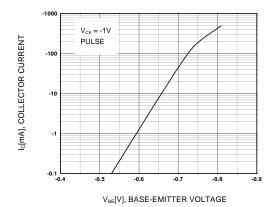
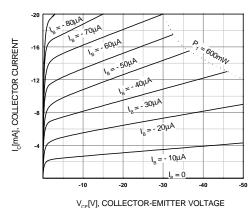


Figure 5. Base-Emitter On Voltage



V<sub>CE</sub>[V], OOLLEOTOK-LIMITTEK VOLTAGE

Figure 2. Static Characteristic

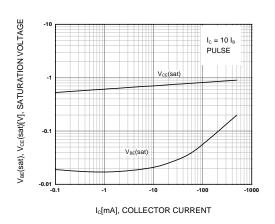


Figure 4. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

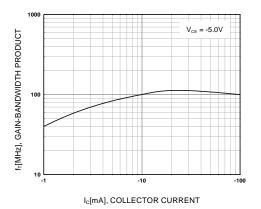
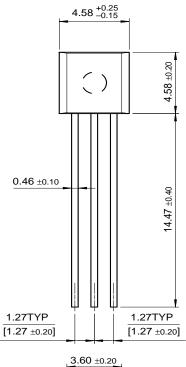


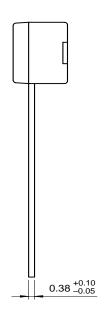
Figure 6. Gain Bandwidth Product

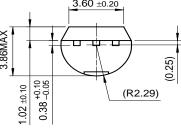
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# **Package Dimensions**

TO-92







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Across the board.	Around the world.™	OCXPro™	RapidConnect™	UltraFET <sup>®</sup>
The Power Franci	hise™	OPTOLOGIC <sup>®</sup>	SILENT SWITCHER®	VCX <sup>TM</sup>
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Go

Home >> Find products >>

## **BC327**

PNP Epitaxial Silicon Transistor

#### **Contents**

Features

Qualification Support

- Applications
- Product status/pricing/packaging
- Order Samples

#### **Features**

- Suitable for AF-Driver stages and low power output stages
- Complement to BC337/BC338

back to top

**Applications** 

**Switching and Amplifier** 

back to top

Product status/pricing/packaging

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This page Print version

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Request samples

How to order products

**Product Change Notices** (PCNs)

Support

Sales support

Quality and reliability

Design center

Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
BC327	Full Production	Full Production	\$0.079	<u>TO-92</u>	3	BULK	Line 1: <b>\$Y</b> (Fairchild logo)  & <b>Z</b> (Asm. Plant Code)  & <b>3</b> (3-Digit Date Code)  Line 2: BC327
BC32716	Full Production	Full Production	\$0.079	TO-92	3		Line 1: <b>\$Y</b> (Fairchild logo) & <b>Z</b> (Asm. Plant Code) & <b>3</b> (3-Digit Date Code) Line 2: BC327 Line 3: -16
BC32716BU	Full Production		\$0.0296	<u>TO-92</u>	3	BULK	Line 1: BC327 Line 2: 16 Line 3: -&3

		Full Production					
BC32716TA	Full Production	Full Production	\$0.0296	<u>TO-92</u>	3	АММО	Line 1: BC327 Line 2: 16 Line 3: -&3
BC32716TAR	Full Production	Full Production	\$0.0296	TO-92	3	АММО	Line 1: BC327 Line 2: 16 Line 3: -&3
BC32716TF	Full Production	Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC327 Line 2: 16 Line 3: -&3
BC32716TFR	Full Production	Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC327 Line 2: 16 Line 3: -&3
BC32725	Full Production	Full Production	\$0.079	TO-92	3	BULK	Line 1: <b>\$Y</b> (Fairchild logo) & <b>Z</b> (Asm. Plant Code) & <b>3</b> (3-Digit Date Code) Line 2: BC327 Line 3: -25
BC32725BU	Full Production	Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC327 Line 2: 25 Line 3: -&3
BC32725TA	Full Production	Full Production	\$0.0296	TO-92	3	АММО	Line 1: BC327 Line 2: 25 Line 3: -&3
BC32725TAR	Full Production	Full Production	\$0.0296	TO-92	3	АММО	Line 1: BC327 Line 2: 25 Line 3: -&3
BC32725TF	Full Production	Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC327 Line 2: 25 Line 3: -&3
BC32725TFR	Full Production	Full Production	\$0.0296	<u>TO-92</u>	3	TAPE REEL	Line 1: BC327 Line 2: 25 Line 3: -&3

BC32725_J18Z	Full Production	Full Production	N/A	<u>TO-92</u>	3	BULK	Line 1: <b>\$Y</b> (Fairchild logo) & <b>Z</b> (Asm. Plant Code) & <b>3</b> (3-Digit Date Code) Line 2: BC327 Line 3: -25
BC32740BU	Full Production	Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC327 Line 2: 40 Line 3: -&3
BC32740TA	Full Production	Full Production	\$0.0296	TO-92	3	АММО	Line 1: BC327 Line 2: 40 Line 3: -&3
BC327ABU	Full Production	Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC327 Line 3: -&3
BC327BU	Full Production	Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC327 Line 3: -&3
BC327TA	Full Production	Full Production	\$0.0296	TO-92	3	АММО	Line 1: BC327 Line 3: -&3
BC327TAR	Full Production	Full Production	\$0.0296	TO-92	3	АММО	Line 1: BC327 Line 3: -&3
BC327TF	Full Production	Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC327 Line 3: -&3
BC327TFR	Full Production	Full Production	\$0.0296	<u>TO-92</u>	3	TAPE REEL	Line 1: BC327 Line 3: -&3
BC327_NL	Full Production	Full Production	N/A	<u>TO-92</u>	3	BULK	Line 1: \$Y (Fairchild logo) &Z (Asm. Plant Code) &3 (3-Digit Date Code) Line 2: BC327

<sup>\*</sup> Fairchild 1,000 piece Budgetary Pricing

\*\* A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a Fairchild distributor to obtain samples



Indicates product with Pb-free second-level interconnect. For more information click here.

Package marking information for product BC327 is available. Click here for more information.

## back to top

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Product
BC327
BC32716
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BC32716TAR
BC32716TF
BC32716TFR
BC32725
BC32725BU
BC32725TA
BC32725TAR
BC32725TF
BC32725TFR
BC32725_J18Z
BC32740BU
BC32740TA
BC327ABU
BC327BU
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