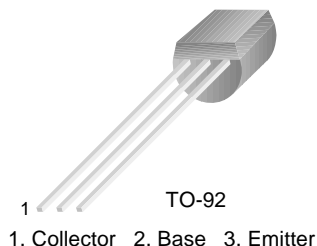


BC337/338

Switching and Amplifier Applications

- Suitable for AF-Driver stages and low power output stages
- Complement to BC327/BC328



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CES}	Collector-Emitter Voltage		
	: BC337	50	V
	: BC338	30	V
V_{CEO}	Collector-Emitter Voltage		
	: BC337	45	V
	: BC338	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	800	mA
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}, I_B=0$	45			V
			25			V
BV_{CES}	Collector-Emitter Breakdown Voltage	$I_C=0.1\text{mA}, V_{BE}=0$	50			V
			30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=0.1\text{mA}, I_C=0$	5			V
I_{CES}	Collector Cut-off Current	$V_{CE}=45\text{V}, I_B=0$ $V_{CE}=25\text{V}, I_B=0$		2	100	nA
				2	100	nA
h_{FE1}	DC Current Gain	$V_{CE}=1\text{V}, I_C=100\text{mA}$ $V_{CE}=1\text{V}, I_C=300\text{mA}$	100		630	
h_{FE2}			60			
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=500\text{mA}, I_B=50\text{mA}$			0.7	V
$V_{BE}(\text{on})$	Base Emitter On Voltage	$V_{CE}=1\text{V}, I_C=300\text{mA}$			1.2	V
f_T	Current Gain Bandwidth Product	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=50\text{MHz}$		100		MHz
C_{ob}	Output Capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		12		pF

h_{FE} Classification

Classification	16	25	40
h_{FE1}	100 ~ 250	160 ~ 400	250 ~ 630
h_{FE2}	60-	100-	170-

Package Dimensions

TO-92



Dimensions in Millimeters

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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BC337

NPN Epitaxial Silicon Transistor

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Features

- Suitable for AF-Driver stages and low power output stages
- Complement to BC327/BC328

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Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
BC337	Full Production	Full Production	\$0.082	TO-92	3	BULK	Line 1: \$Y (Fairchild logo) &Z (Asm. Plant Code) &3 (3-Digit Date Code) Line 2: BC337
BC33716	Full Production	Full Production	\$0.082	TO-92	3	BULK	Line 1: \$Y (Fairchild logo) &Z (Asm. Plant Code) &3 (3-Digit Date Code) Line 2: BC337 Line 3: -16
BC33716BU	Full Production		\$0.0296	TO-92	3	BULK	Line 1: BC337 Line 2: 16 Line 3: -&3

		 Full Production					
BC33716TA	Full Production	 Full Production	\$0.0296	TO-92	3	AMMO	Line 1: BC337 Line 2: 16 Line 3: -&3
BC33716TAR	Full Production	 Full Production	\$0.0296	TO-92	3	AMMO	Line 1: BC337 Line 2: 16 Line 3: -&3
BC33716TF	Full Production	 Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC337 Line 2: 16 Line 3: -&3
BC33716TFR	Full Production	 Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC337 Line 2: 16 Line 3: -&3
BC33725	Full Production	 Full Production	\$0.082	TO-92	3	BULK	Line 1: \$Y (Fairchild logo) &Z (Asm. Plant Code) &3 (3-Digit Date Code) Line 2: BC337 Line 3: -25
BC33725BU	Full Production	 Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC337 Line 2: 25 Line 3: -&3
BC33725TA	Full Production	 Full Production	\$0.0296	TO-92	3	AMMO	Line 1: BC337 Line 2: 25 Line 3: -&3
BC33725TAR	Full Production	 Full Production	\$0.0296	TO-92	3	AMMO	Line 1: BC337 Line 2: 25 Line 3: -&3
BC33725TF	Full Production	 Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC337 Line 2: 25 Line 3: -&3
BC33725TFR	Full Production	 Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC337 Line 2: 25 Line 3: -&3

BC33740BU	Full Production	 Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC337 Line 2: 40 Line 3: -&3
BC33740TA	Full Production	 Full Production	\$0.0296	TO-92	3	AMMO	Line 1: BC337 Line 2: 40 Line 3: -&3
BC337ABU	Full Production	 Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC337 Line 3: -&3
BC337BU	Full Production	 Full Production	\$0.0296	TO-92	3	BULK	Line 1: BC337 Line 3: -&3
BC337TF	Full Production	 Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC337 Line 3: -&3
BC337TFR	Full Production	 Full Production	\$0.0296	TO-92	3	TAPE REEL	Line 1: BC337 Line 3: -&3

* 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 BC337 is available. [Click here for more information](#).

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Qualification Support

Click on a product for detailed qualification data

Product
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BC33716TA

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BC33725
BC33725BU
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