

# BC636 PNP Epitaxial Silicon Transistor

### **Switching and Amplifier Applications**

Complement to BC635



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

Symbol	Parameter	Value	Units
V <sub>CER</sub>	Collector-Emitter Voltage at $R_{BE}$ =1K $\Omega$	-45	V
V <sub>CES</sub>	Collector-Emitter Voltage	-45	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-45	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current	-1	A
I <sub>CP</sub>	Peak Collector Current	-1.5	A
IB	Base Current	-100	mA
P <sub>C</sub>	Collector Power Dissipation	1	W
TJ	Junction Temperature	150	۵°
T <sub>STG</sub>	Storage Temperature	-65 ~ 150	۵°

### 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	-45			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -30V, I <sub>E</sub> =0			-0.1	μA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> = -5V, I <sub>C</sub> =0			-0.1	μΑ
h <sub>FE1</sub> h <sub>FE2</sub> h <sub>FE3</sub>	DC Current Gain	V <sub>CE</sub> = -2V, I <sub>C</sub> = -5mA V <sub>CE</sub> = -2V, I <sub>C</sub> = -150mA V <sub>CE</sub> = -2V, I <sub>C</sub> = -500mA	25 40 25		250	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA			-0.5	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	V <sub>CE</sub> = -2V, I <sub>C</sub> = -500mA			-1	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA, f=50MHz		100		MHz

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Package Marking and Ordering Information					
Device Marking	Device	Package	Reel Size	Tape Width	Quantity
BC636	BC636BU	TO-92			10,000
BC636	BC636TA	TO-92			2,000
BC636	BC636TAR	TO-92			2,000
BC636	BC636TF	TO-92			2,000
BC636	BC636TFR	TO-92			2,000

## **Typical Performance Characteristics**

### Figure 1. Static Characteristic

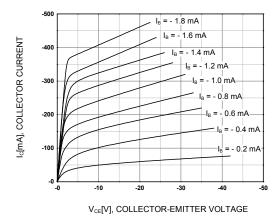
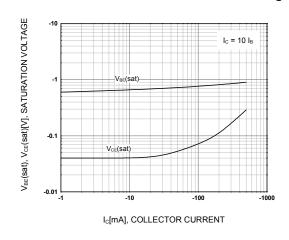


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage





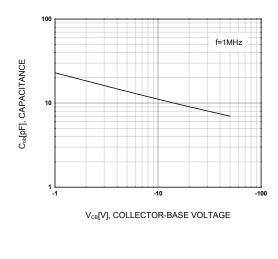


Figure 2. DC Current Gain

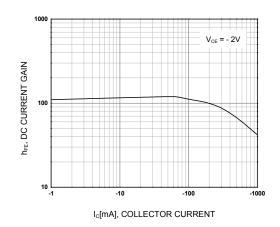
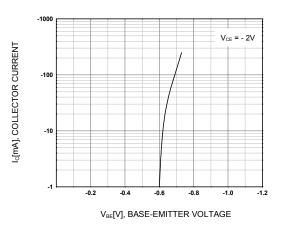
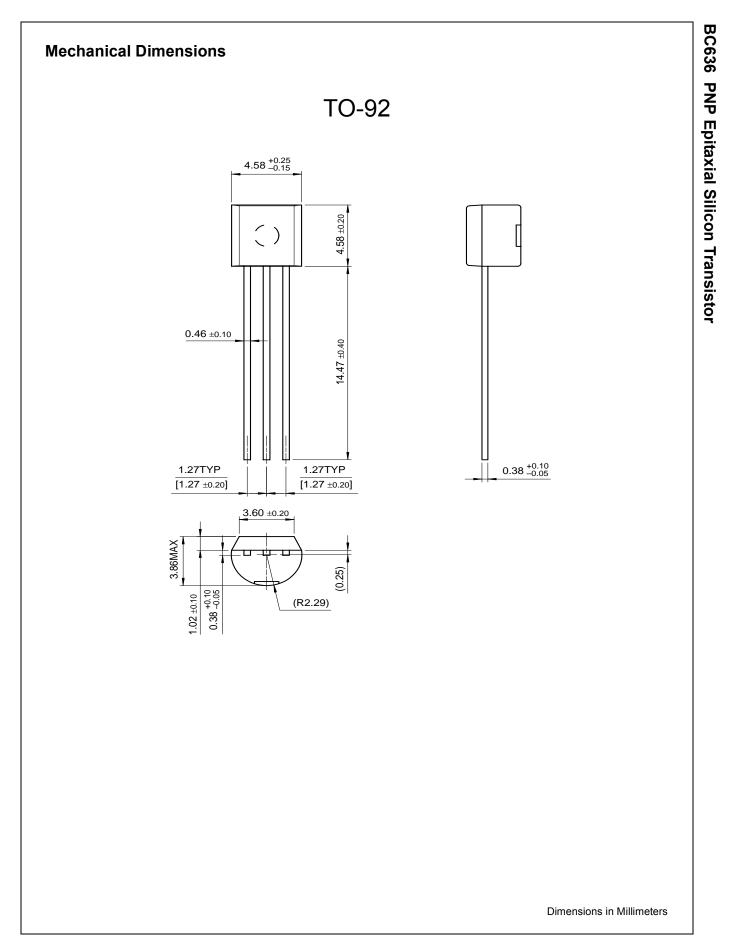


Figure 4. Base-Emitter On Voltage





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