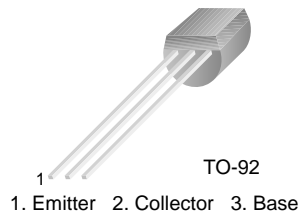


BC640

PNP Epitaxial Silicon Transistor

Switching and Amplifier Applications

- Complement to BC639



Absolute Maximum Ratings T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CER}	Collector-Emitter Voltage at R _{BE} =1KΩ	-100	V
V _{CES}	Collector-Emitter Voltage	-100	V
V _{CEO}	Collector-Emitter Voltage	-80	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-1	A
I _{CP}	Peak Collector Current	-1.5	A
I _B	Base Current	-100	mA
P _C	Collector Power Dissipation	1	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-65 ~ 150	°C

Electrical Characteristics T_a = 25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C = -10mA, I _B =0	-80			V
I _{CBO}	Collector Cut-off Current	V _{CB} = -30V, I _E =0			-0.1	μA
I _{EBO}	Emitter Cut-off Current	V _{EB} = -5V, I _C =0			-10	μA
h _{FE1} h _{FE2} h _{FE3}	DC Current Gain	V _{CE} = -2V, I _C = -5mA V _{CE} = -2V, I _C = -150mA V _{CE} = -2V, I _C = -500mA	25 40 25		160	
V _{CE (sat)}	Collector-Emitter Saturation Voltage	I _C = -500mA, I _B = -50mA			-0.5	V
V _{BE (on)}	Base-Emitter On Voltage	V _{CE} = -2V, I _C = -500mA			-1	V
f _T	Current Gain Bandwidth Product	V _{CE} = -5V, I _C = -10mA, f=50MHz		100		MHz

Package Marking and Ordering Information

Device Marking	Device	Package
BC640	BC640	TO-92
BC640	BC640BU	TO-92
BC640	BC640TA	TO-92
BC640	BC640TAR	TO-92
BC640	BC640TF	TO-92
BC640	BC640TFR	TO-92
BC640	BC640_J35Z	TO-92
BC640	BC640_J61Z	TO-92

Typical Performance Characteristics

Figure 1. Static Characteristic

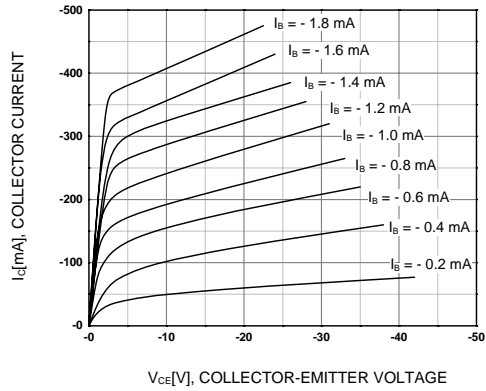
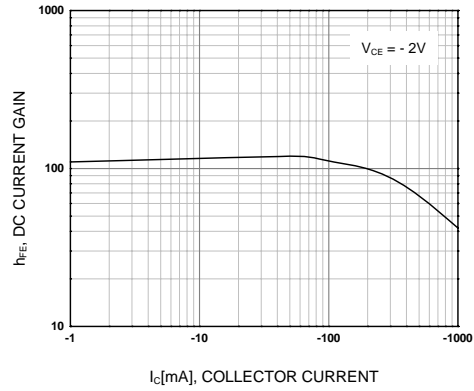


Figure 2. DC Current Gain



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

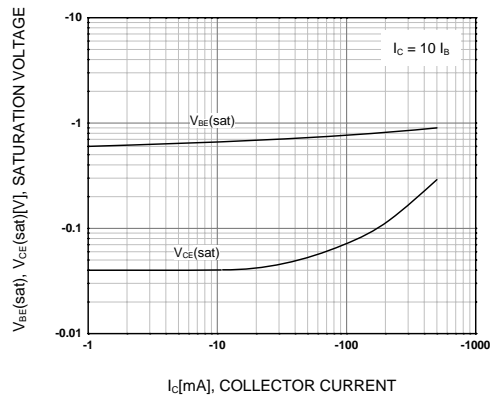


Figure 4. Base-Emitter On Voltage

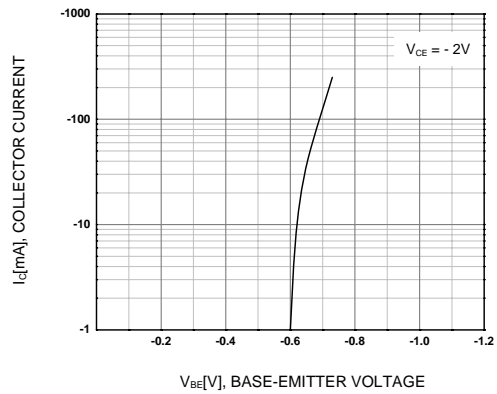
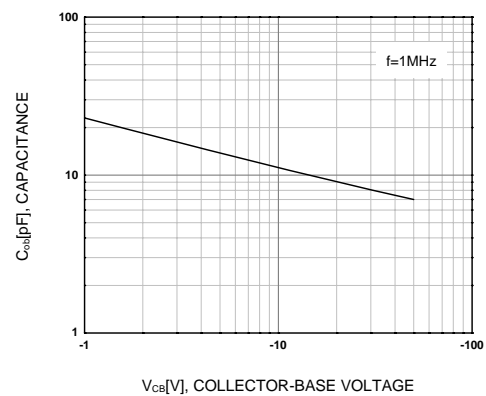
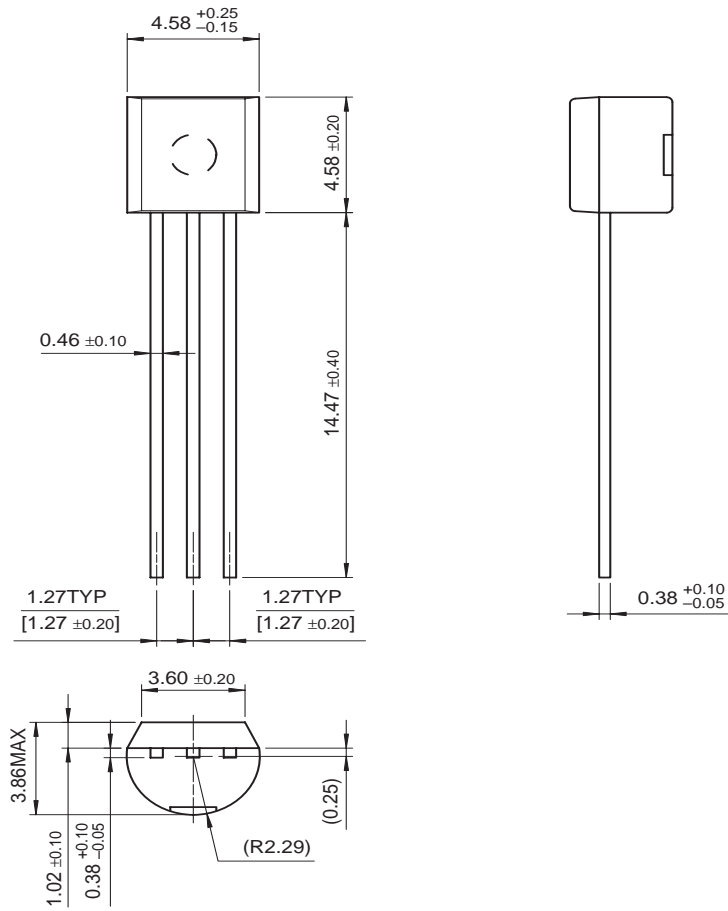


Figure 5. Collector Output Capacitance



Mechanical Dimensions

TO-92






Dimensions in Millimeters



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