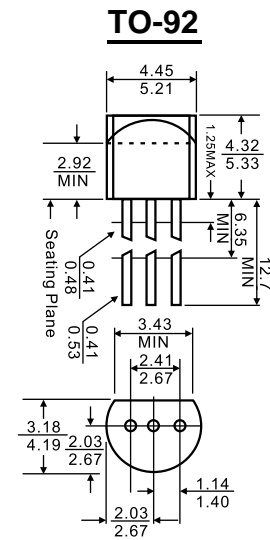




1. EMITTER
2. COLLECTOR
3. BASE



Dimensions in inches and (millimeters)

Features

- ◇ High current transistors

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Emitter Voltage	BC635	45
		BC637	60
		BC639	100
V_{CEO}	Collector-Emitter Voltage	BC635	45
		BC637	60
		BC639	80
V_{EBO}	Emitter-Base Voltage	5	V
I_{C}	Collector Current -Continuous	1	A
P_{C}	Collector Power Dissipation	0.625	W
T_{J}	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{\text{amb}}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=10\text{mA}, I_{\text{B}}=0$ BC635	45			V
		BC637	60			V
		BC639	80			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=30\text{V}, I_{\text{E}}=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=5\text{V}, I_{\text{B}}=0$			0.1	μA
DC current gain	$h_{\text{FE}(1)}$	$V_{\text{CE}}=2\text{V}, I_{\text{C}}=5\text{mA}$	25			
	$h_{\text{FE}(2)}$	$V_{\text{CE}}=2\text{V}, I_{\text{C}}=150\text{mA}$ BC635	40		250	
		BC637-10/BC639-10	63		160	
		BC637-16/BC639-16	100		250	
$h_{\text{FE}(3)}$	$V_{\text{CE}}=2\text{V}, I_{\text{C}}=500\text{mA}$	25				
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=500\text{mA}, I_{\text{B}}=50\text{mA}$			0.5	V
Base-emitter voltage	V_{BE}	$V_{\text{CE}}=2\text{V}, I_{\text{C}}=500\text{mA}$			1	V
Transition frequency	f_{T}	$V_{\text{CE}}=5\text{V}, I_{\text{C}}=10\text{mA}, f=50\text{MHz}$		100		MHz

Typical Characteristics

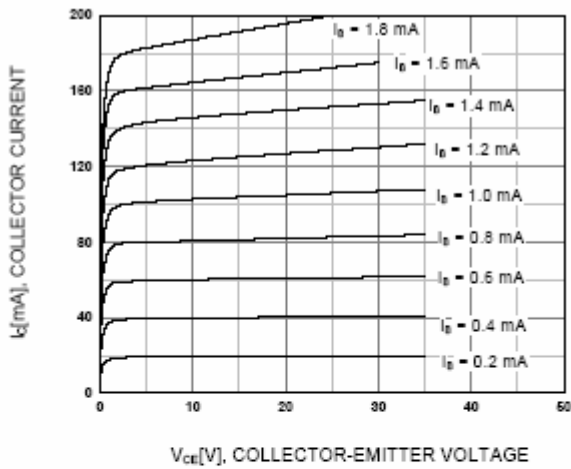


Figure 1. Static Characteristic

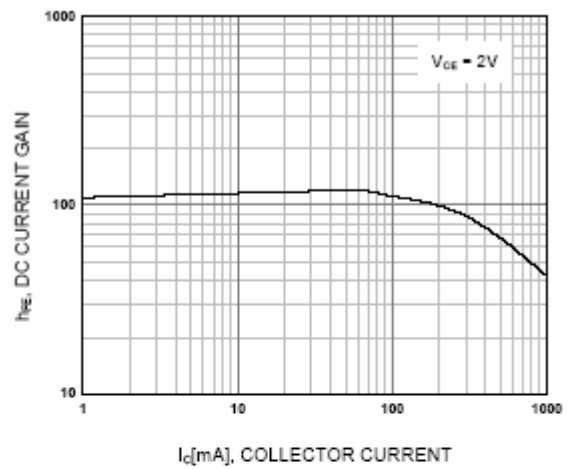


Figure 2. DC current Gain

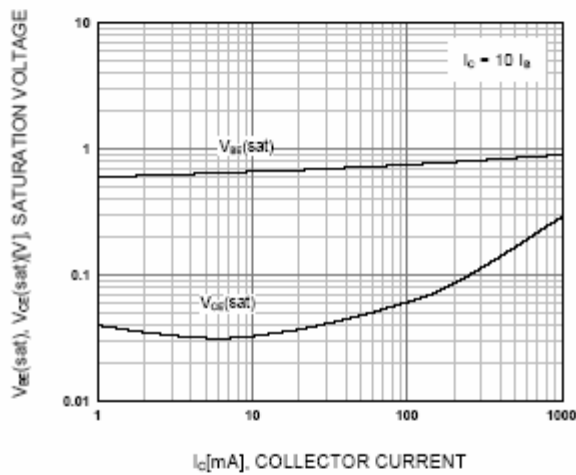


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

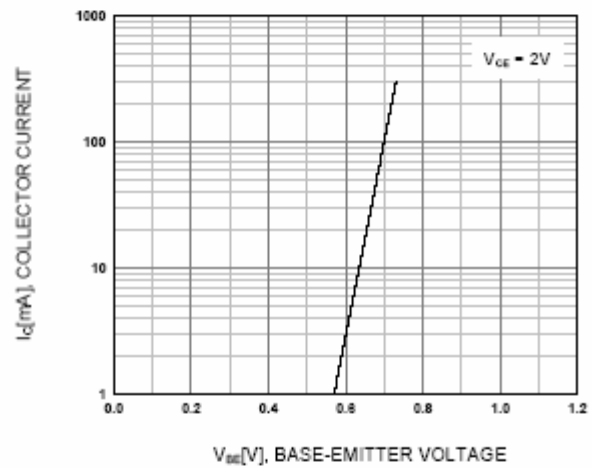


Figure 4. Base-Emitter On Voltage

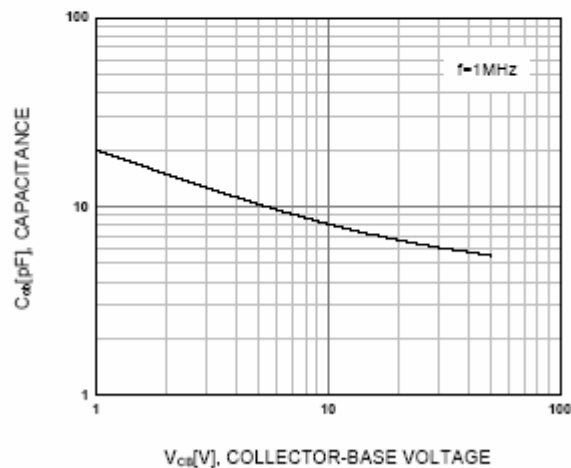


Figure 5. Collector Output Capacitance