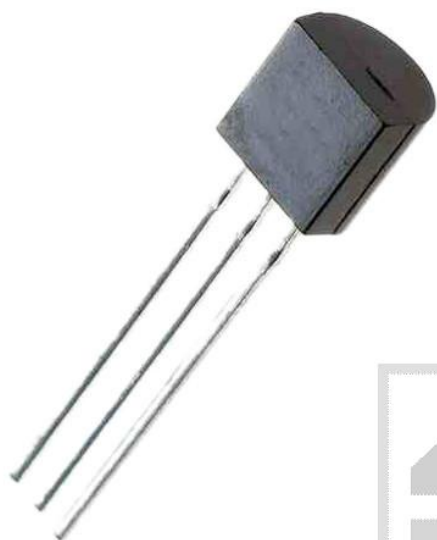




ROBERT STĘPIEŃ
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TR BC307B;LGE;TO92;tranzystor; PNP;0.2A;50V;0.5W;Pbf



Dane techniczne:

Nazwa: BC307B

Typ tranzystora: bipolarny

Kierunek przewodnictwa: PNP

Prąd kolektora: 0.2A

Napięcie kolektor-emiter: 50V

Moc: 0.5W

Obudowa: TO92

Montaż: przewlekany (THT)

Producent: LGE

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sklep@podzespoly-elektroniczne.pl



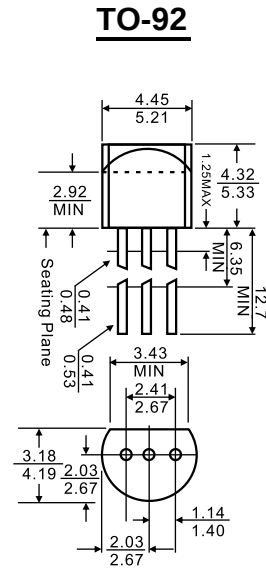
1. COLLECTOR
2. BASE
3. EMITTER

Features

- ✧ Amplifier dissipation NPN Silicon

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

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage BC307	-45	V
	BC308/309	-25	
V_{EBO}	Emitter-Base Voltage BC307	-6	V
	BC308/309	-5	
I_C	Collector Current -Continuous	-0.1	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^{\circ}\text{C/W}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	125	$^{\circ}\text{C/W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$



Dimensions in inches and (millimeters)

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}$, $I_E=0$ BC307 BC308/309	-50 -30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-2\text{mA}$, $I_B=0$ BC307 BC308/309	-45 -25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}$, $I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-45\text{V}$, $I_E=0$ BC307 $V_{CB}=-25\text{V}$, $I_E=0$ BC308/309			-15	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0$			-15	nA
DC current gain	h_{FE}	$V_{CE}=-5\text{V}$, $I_C=-2\text{mA}$	120		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-10\text{mA}$, $I_B=-0.5\text{mA}$			-0.3	V
		$I_C=-100\text{mA}$, $I_B=-5\text{mA}$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-10\text{mA}$, $I_B=-0.5\text{mA}$			-0.75	V
		$I_C=-100\text{mA}$, $I_B=-5\text{mA}$			-1	V
Base-emitter voltage	V_{BE}	$V_{CE}=-5\text{V}$, $I_C=-2\text{mA}$	-0.55		-0.75	V
Transition frequency	f_T	$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$, $f=50\text{MHz}$		130		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$			6	pF
Noise figure	NF	$V_{CE}=-5\text{V}$, $I_C=-0.2\text{mA}$, $f=1\text{KHz}$, $R_G=2\text{K}\Omega$ BC307/BC308			10	dB
		BC309			4	
		$V_{CE}=-5\text{V}$, $I_C=-0.2\text{mA}$, $f=30-15\text{KHz}$, $R_G=2\text{K}\Omega$ BC309			4	

CLASSIFICATION OF h_{FE}

Rank	A	B	C
Range	120-220	180-460	380-800

Typical Characteristics

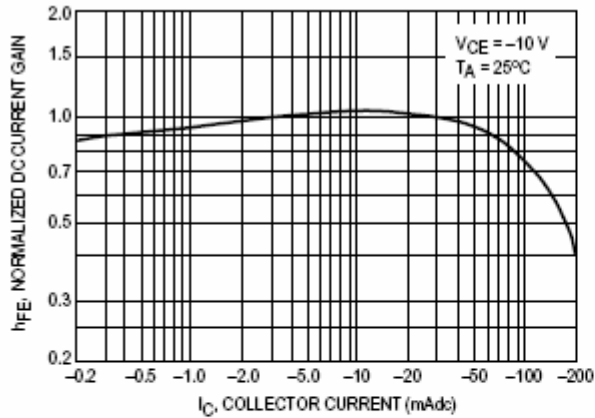


Figure 1. Normalized DC Current Gain

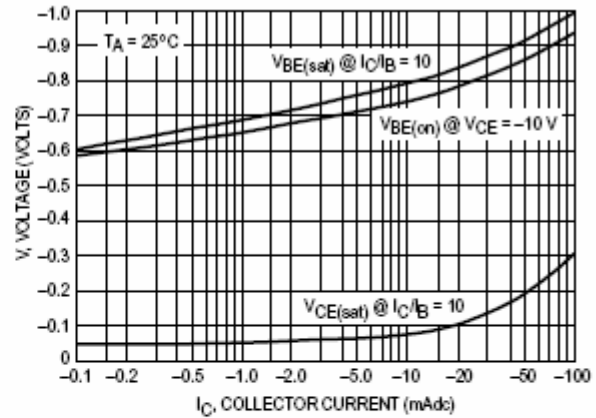


Figure 2. "Saturation" and "On" Voltages

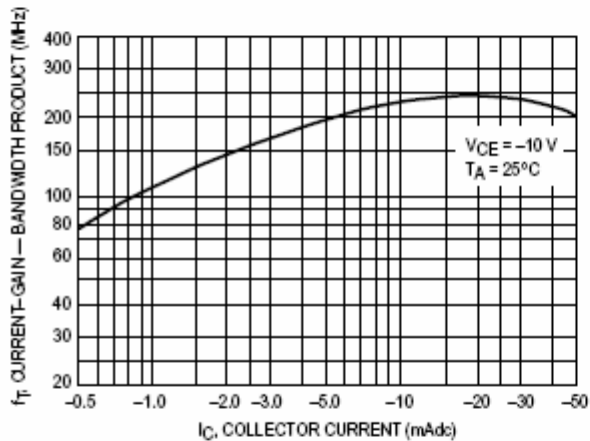


Figure 3. Current-Gain — Bandwidth Product

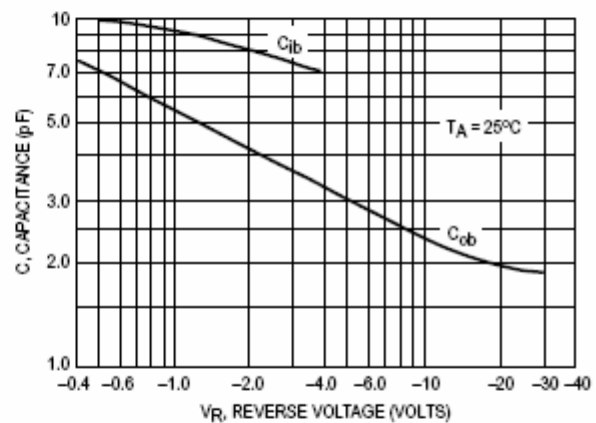


Figure 4. Capacitances

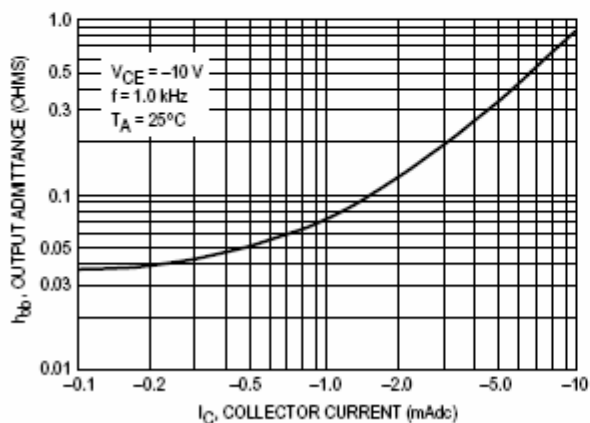


Figure 5. Output Admittance

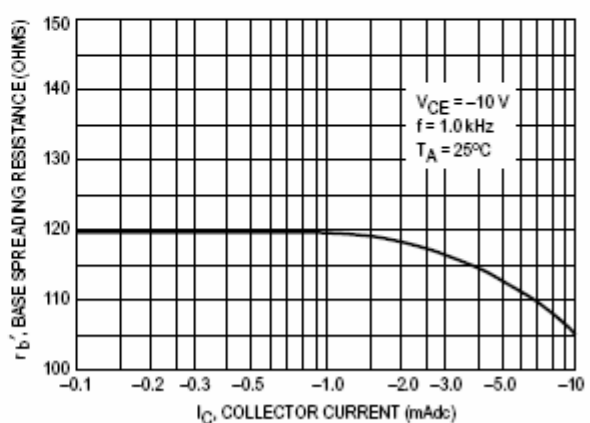


Figure 6. Base Spreading Resistance