BC 225

SILICON PLANAR PNP

AUDIO AMPLIFIER

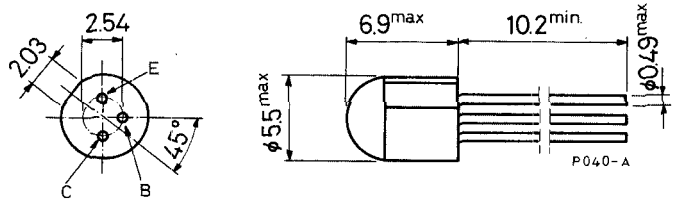
The BC 225 is a silicon planar PNP transistor in a TO-18 epoxy package. Designed for audio applications, it presents good current gain linearity from 10 μA to 50 mA.

ABSOLUTE MAXIMUM RATINGS

V_{CBO}	Collector-base voltage ($I_E = 0$)	-40 V
V_{CEO}	Collector-emitter voltage ($I_B = 0$)	-40 V
V_{EBO}	Emitter-base voltage ($I_C = 0$)	-5 V
I_C	Collector current	-100 mA
P_{tot}	Total power dissipation at $T_{amb} \leq 25$ °C	0.2 W
	at $T_{case} \leq 25$ °C	0.5 W
T_{stg}	Storage temperature	-55 to 125 °C
T_j	Junction temperature	125 °C

MECHANICAL DATA

Dimensions in mm



TO-18 epoxy

BC 225

THERMAL DATA

$R_{th\ j\text{-}case}$	Thermal resistance junction-case	max	200	°C/W
$R_{th\ j\text{-}amb}$	Thermal resistance junction-ambient	max	500	°C/W

ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C unless otherwise specified)

Parameter		Test conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector cutoff current (I_E = 0)	V_{CB} = -30 V			-100	nA
$V_{(BR)\ CBO}$	Collector-base breakdown voltage (I_E = 0)	I_C = -10 μA	-40			V
$V_{(BR)\ CEO}$	Collector-emitter breakdown voltage (I_B = 0)	I_C = -5 mA	-40			V
$V_{(BR)\ EBO}$	Emitter-base breakdown voltage (I_C = 0)	I_E = -10 μA	-5			V
$V_{CE\ (sat)}$	Collector-emitter saturation voltage	I_C = -10 mA I_B = -0.5 mA I_C = -50 mA I_B = -5 mA		-0.1 -0.16	-0.25	V V
V_{BE}	Base-emitter voltage	I_C = -1 mA V_{CE} = -5 V		-0.65		V
h_{FE}	DC current gain	I_C = -10 μA V_{CE} = -5 V I_C = -100 μA V_{CE} = -5 V I_C = -1 mA V_{CE} = -5 V I_C = -10 mA V_{CE} = -5 V I_C = -50 mA V_{CE} = -5 V	 90 90 90 	130 155 170 165 140		— — — — —
f_T	Transition frequency	I_C = -1 mA V_{CE} = -5 V		70		MHz
C_{CBO}	Collector-base capacitance	I_E = 0 V_{CB} = -5 V f = 1 MHz		4		pF
NF	Noise figure	I_C = -20 μA V_{CE} = -5 V R_g = 10 kΩ f = 1 kHz B = 200 Hz I_C = -0.25 mA V_{CE} = -5 V R_g = 1 kΩ f = 1 kHz B = 200 Hz		1 1		dB dB