DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

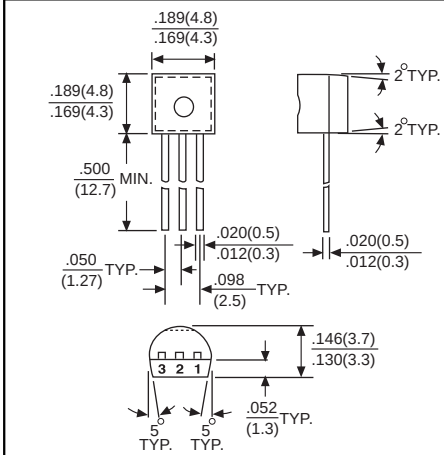
BC557

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

Designed for use in driver stage of audio amplifiers.

TO-92



Dimensions in inches and (millimeters)

Pinning

1 = Collector
2 = Base
3 = Emitter

Absolute Maximum Ratings (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Total Power Dissipation	P_D	500	mW
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Volatge	BV_{CBO}	-50	-	-	V	I_C=-100μA
Collector-Emitter Breakdown Voltage	BV_{CEO}	-45	-	-	V	I_C=-1mA
Emitter-Base Breakdown Volatge	BV_{EBO}	-5	-	-	V	I_E=-10μA
Collector Cutoff Current	I_{CBO}	-	-	-0.1	μA	V_{CB}=-20V
Emitter Cutoff Current	I_{EBO}	-	-	-1	μA	V_{EB}=-5V
Collector-Emitter Saturation Voltage(1)	$V_{CE(sat)1}$	-	-	-300	mV	I_C=-10mA, I_B=-1mA
	$V_{CE(sat)2}$	-	-	-650	mV	I_C=-100mA, I_B=-10mA
Base-Emitter On Voltage	$V_{BE(on)1}$	-600	-	-750	mV	I_C=-2mA, V_{CE}=-5V
	$V_{BE(on)2}$	-	-	-820	mV	I_C=-10mA, V_{CE}=-5V
DC Current Gain(1)	h_{FE}	75	-	800	-	I_C=-2mA, V_{CB}=-5V
Transition Frequency	f_T	-	300	-	MHz	I_C=-10mA, V_{CE}=-5V, f=100MHz
Output Capacitance	C_{ob}	-	4.5	-	pF	V_{CB}=-10V, f=1MHz, I_E=0

(1)Pulse Test: Pulse Width ≦ 380μs, Duty Cycle ≦ 2%

Classification of h_{FE}

Rank	A	B	C
Range	75~260	220~500	420~800

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