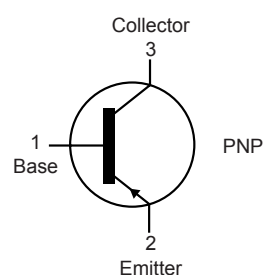
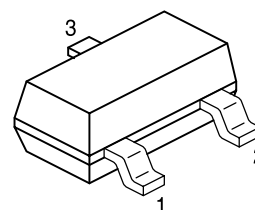


PNP General Purpose Amplifier



Features:

- For general AF applications
- Complementary NPN type available BC817
- High collector current
- High current gain
- Low collector-emitter saturation voltage

Maximum Ratings

Parameter	Symbol	Value	Unit
Collector - Base Voltage	V_{CBO}	-50	V
Collector - Emitter Voltage	V_{CEO}	-45	
Emitter - Base Voltage	V_{ebo}	-5	
Collector Current Continuous	I_C	-500	mA
Total Device Dissipation	P_{TOT}	300	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	T_j, T_{stg}	-65 to +150	°C

PNP General Purpose Amplifier



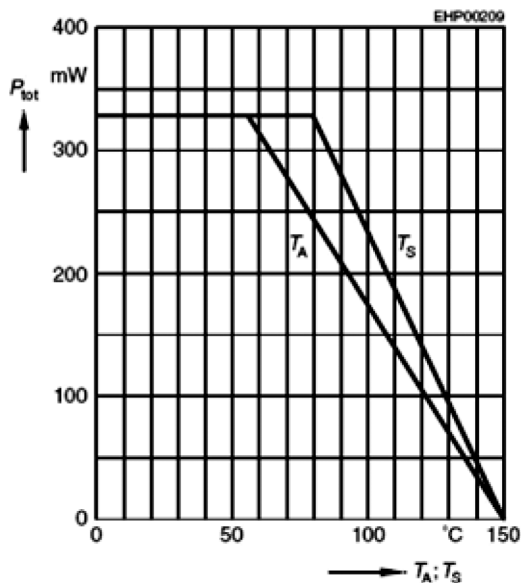
Electrical Characteristics ($T_a = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-50			V
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-45			
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -1\mu\text{A}, I_C = 0$	-5			
Collector Cut-off Current	I_{CBO}	$V_{CB} = -25\text{V}, I_E = 0$			-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{CE} = -4\text{V}, I_E = 0$			-0.1	
DC Current Gain	BC807 BC807-16 BC807-25 BC807-40	h_{FE}	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	100 160 250	600 250 400 600	
DC Current Gain	BC807 BC807-16 BC807-25 BC807-40	h_{FE}	$V_{CE} = -1\text{V}, I_C = -300\text{mA}$	40 60 100 170		
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.7	V
Base - Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-1.2	
Output Capacitance	C_{obo}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$			10	pF
Transition Frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$		200		MHz

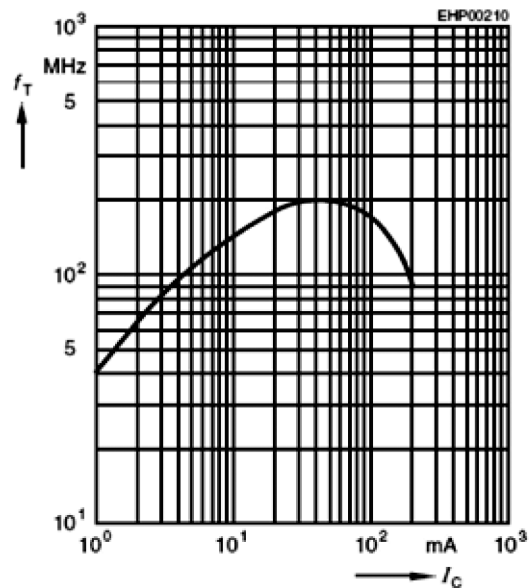
Typical Characteristics: $T_a = 25^\circ\text{C}$ unless otherwise specified

Ratings & Characteristic Curves

Total power dissipation $P_{tot} = f(T_A, T_S)$
*Package mounted on epoxy



Transition frequency $f_T = f(I_C)$
 $V_{CE} = 5\text{V}$



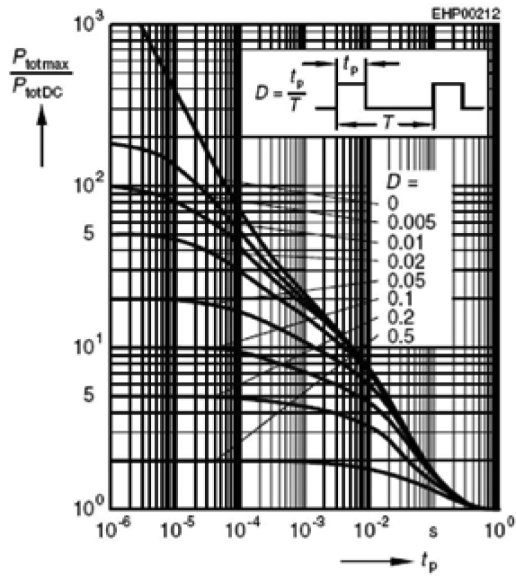
PNP General Purpose Amplifier

Typical Characteristics: $T_a=25^\circ\text{C}$ unless otherwise specified

Ratings & Characteristic Curves

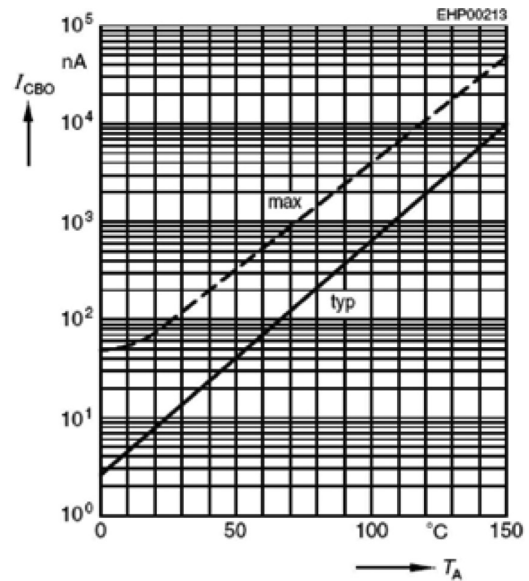
Permissible pulse load

$$P_{\text{totmax}} / P_{\text{totDC}} = f(t_p)$$



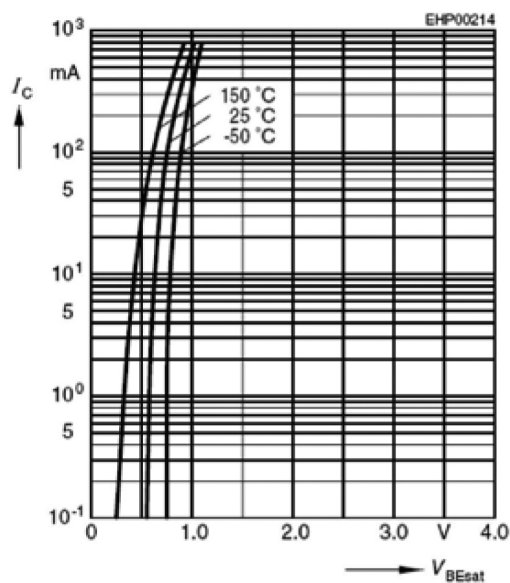
Collector cutoff current $I_{\text{CBO}} = f(T_A)$

$$V_{\text{CBO}} = 25\text{V}$$



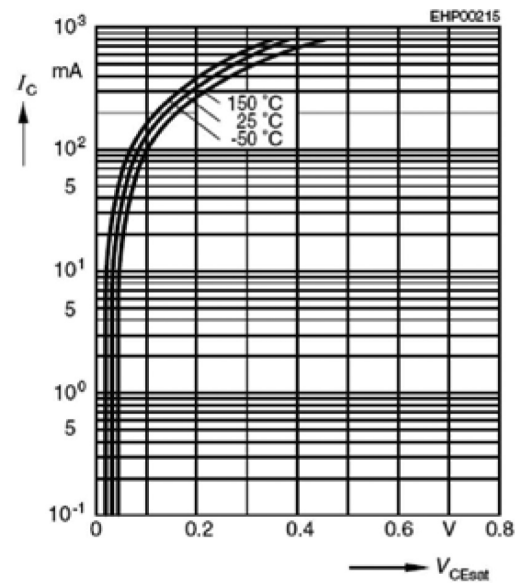
Base-emitter saturation voltage

$$I_C = f(V_{\text{BEsat}}), h_{\text{FE}} = 10$$



Collector-emitter saturation voltage

$$I_C = f(V_{\text{CEsat}}), h_{\text{FE}} = 10$$

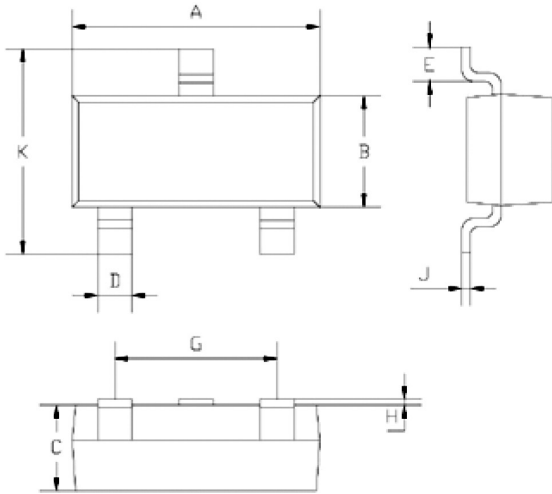


PNP General Purpose Amplifier



Package Outline

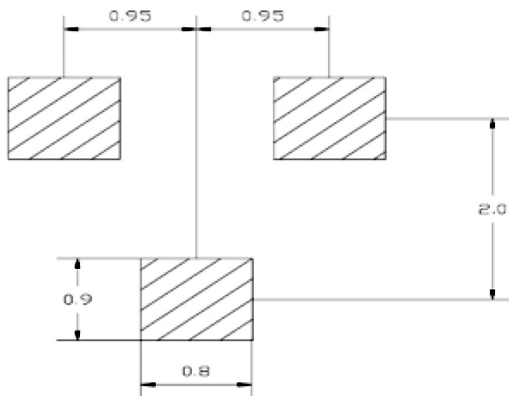
Plastic surface mounted package



Dimensions	Min.	Max.
A	2.5	2.95
B	1.25	1.35
C	1 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45

Dimensions : Millimetres

Soldering Footprint



Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, PNP, 45V, 0.5A, SOT23	BC807
	BC807-16
	BC807-25
	BC807-40

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