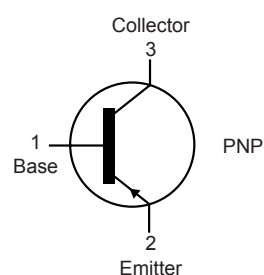
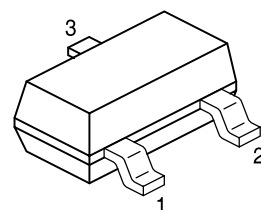


PNP General Purpose Amplifier



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)

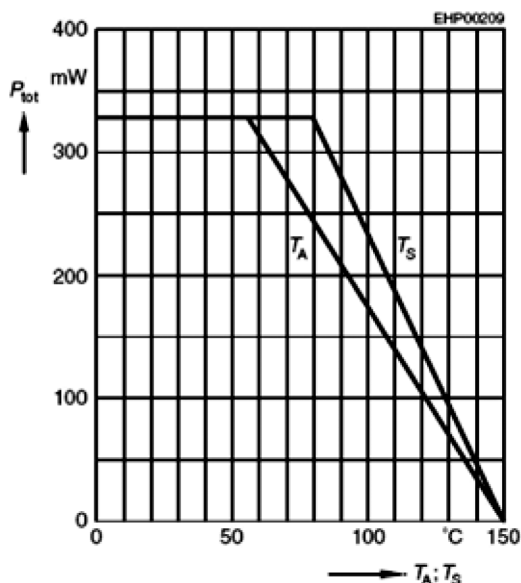
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-50			V
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-45			
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -1\mu\text{A}, I_C = 0$	-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	h_{FE}	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	100	160	600	
BC807			100	250	250	
BC807-16			160	350	400	
BC807-25			250		600	
BC807-40						
DC Current Gain	h_{FE}	$V_{CE} = -1\text{V}, I_C = -300\text{mA}$	40			
BC807			60			
BC807-16			100			
BC807-25			170			
BC807-40						
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

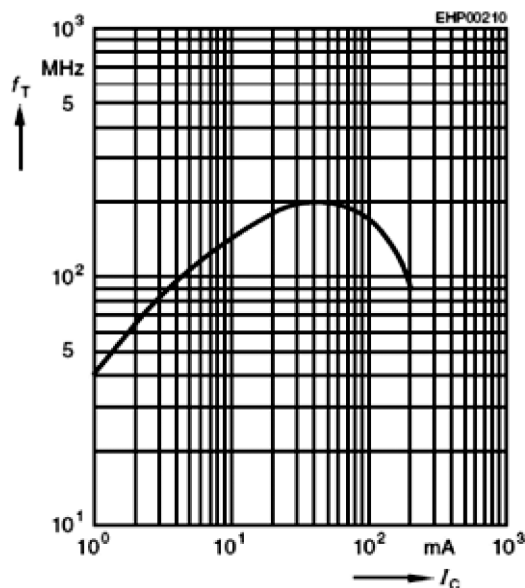
Total power dissipation $P_{tot} = f(T_A^*, T_S)$

*Package mounted on epoxy



Transition frequency $f_T = f(I_C)$

$V_{CE} = 5\text{V}$



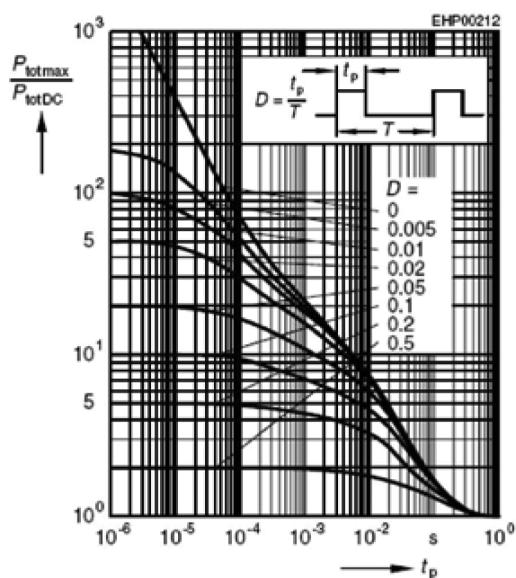
PNP General Purpose Amplifier

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

Ratings & Characteristic Curves

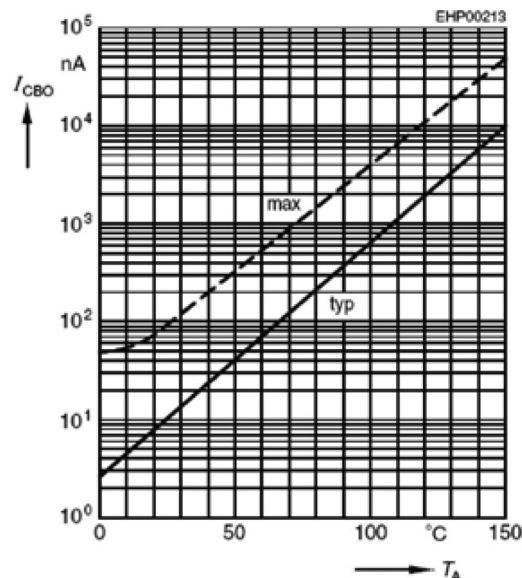
Permissible pulse load

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



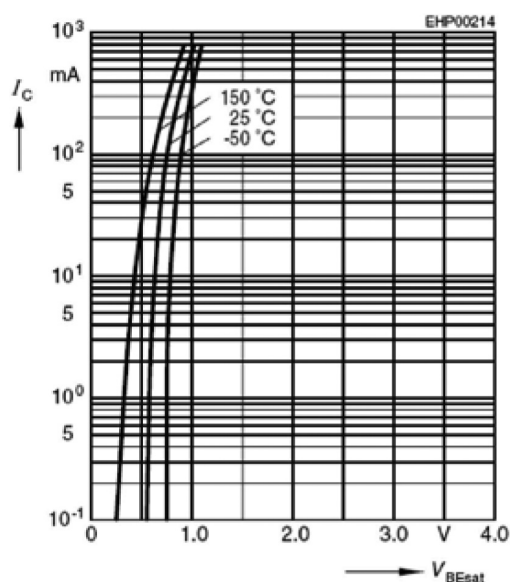
Collector cutoff current $I_{\text{CBO}} = f(T_a)$

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



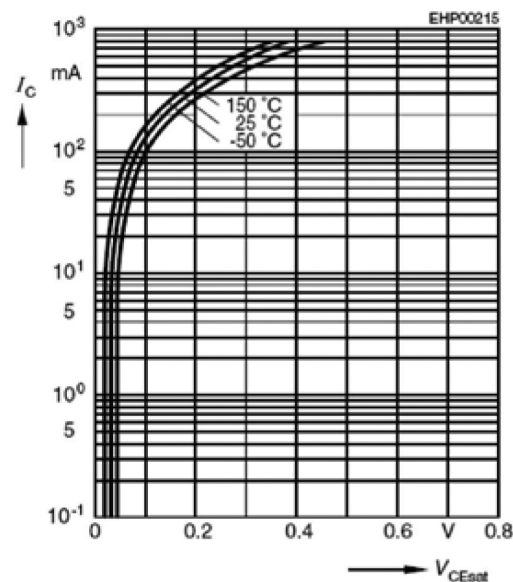
Base-emitter saturation voltage

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



Collector-emitter saturation voltage

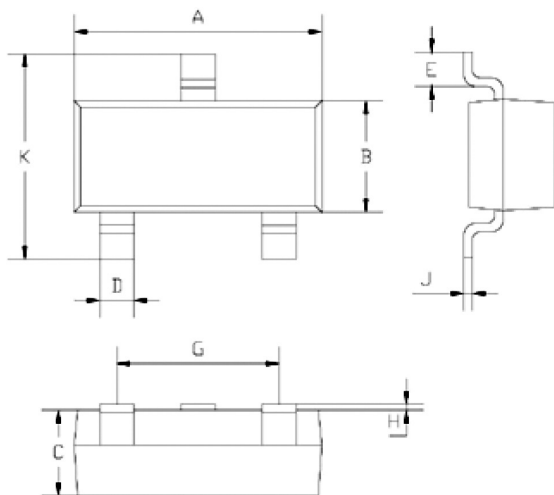
$$I_C = f(V_{\text{CEsat}}), h_{\text{FE}} = 10$$



PNP General Purpose Amplifier

Package Outline

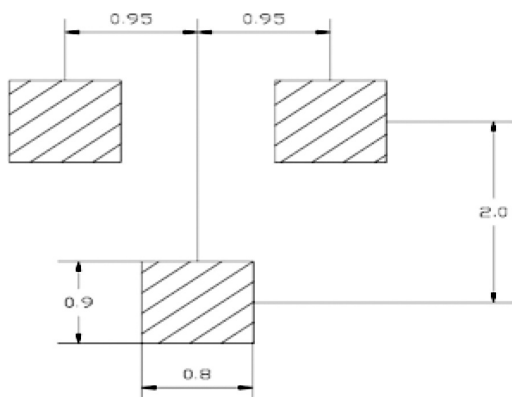
Plastic surface mounted package



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

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.