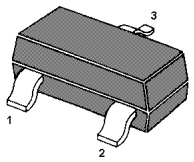
PNP Silicon Epitaxial Planar Transistors

for switching, AF driver and amplifier applications

These transistors are subdivided into three groups -16, -25 and -40, according to their current gain. As complementary types the NPN transistors BC817 and BC818 are recommended.



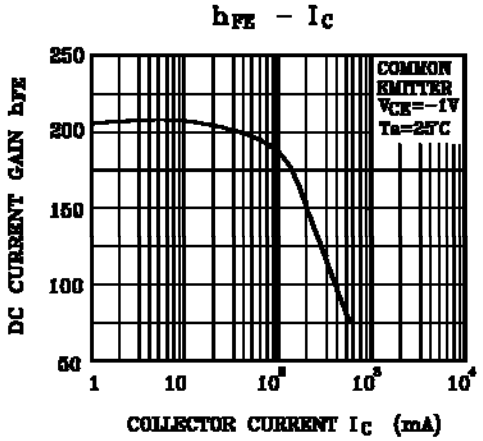
1-Base 2.Emitter 3.Collector
SOT-23 Plastic Package

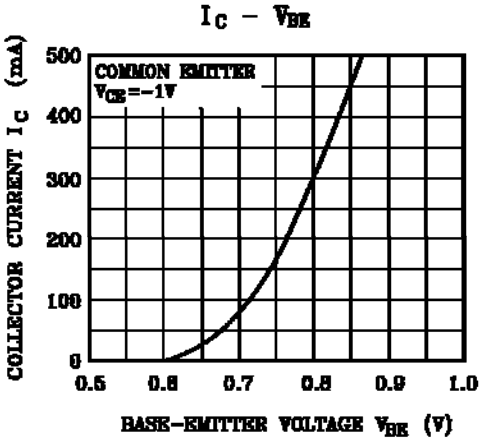
Absolute Maximum Ratings (T_a = 25 °C)

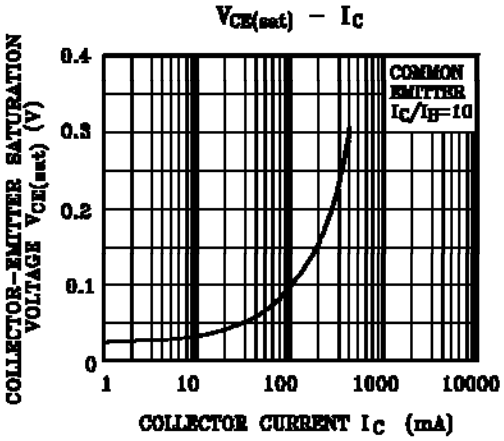
Parameter		Symbol	Value	Unit
Collector Base Voltage	BC807 BC808	$-V_{CBO}$	50 30	V
Collector Emitter Voltage	BC807 BC808	$-V_{CEO}$	45 25	V
Emitter Base Voltage		$-V_{EBO}$	5	V
Collector Current		$-I_C$	500	mA
Power Dissipation		P_{tot}	200	mW
Thermal Resistance Junction to Ambient Air		$R_{\theta JA}$	500	K/W
Junction Temperature		T_J	150	°C
Storage Temperature Range		T_S	- 55 to + 150	°C

Electrical Characteristics at T_a = 25 °C

Parameter			Symbol	Min.	Typ.	Max.	Unit
DC Current Gain							
at $-V_{CE}$ = 1 V, $-I_C$ = 100 mA	Current Gain Group	-16	h_{FE}	100	-	250	-
		-25	h_{FE}	160	-	400	-
		-40	h_{FE}	250	-	600	-
at $-V_{CE}$ = 1 V, $-I_C$ = 500 mA			h_{FE}	40	-	-	-
Collector Base Cutoff Current at $-V_{CB}$ = 20 V			$-I_{CBO}$	-	-	100	nA
Emitter-Base Cutoff Current at $-V_{EB}$ = 5 V			$-I_{EBO}$	-	-	100	nA
Collector Saturation Voltage at $-I_C$ = 500 mA, $-I_B$ = 50 mA			$-V_{CEsat}$	-	-	0.7	V
Base-Emitter Voltage at $-I_C$ = 500 mA, $-V_{CE}$ = 1 V			$-V_{BE(on)}$	-	-	1.2	V
Gain -Bandwidth Product at $-V_{CE}$ = 5 V, $-I_C$ = 10 mA, f = 50 MHz			f_T	80	-	-	MHz
Collector-Base Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz			C_{CBO}	-	9	-	pF







Power Dissipation vs Ambient Temperature