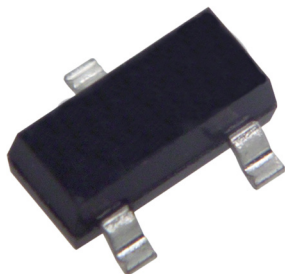
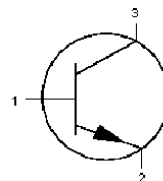


SOT23 PNP Transistor



Features:

- Silicon planar epitaxial transistors
- PNP Transistors



Pin Configuration:

1. Base
2. Emitter
3. Collector

Absolute Maximum Ratings:

Characteristics	Symbol	-	BC858C	Units
Collector-Emitter Voltage ($+V_{BE} = 1V$)	V_{CEX}	Max.	30	V
Collector-Emitter Voltage (Open Base)	V_{CEO}			
Collector Current (Peak Value)	I_{CM}		200	mA
Total Power Dissipation up to $T_a = 25^{\circ}C$	P_{tot}		250	mW
Junction Temperature	T_j		150	$^{\circ}C$
Small-Signal Current Gain $-I_C = 2mA; -V_{CE} = 5V; f = 1kHz$	h_{fe}	-	420 to 800	-
Transition Frequency at $f = 100MHz$ $-I_C = 10mA; -V_{CE} = 5V$	f_T	>	100	MHz
Noise Figure at $RS = 2kW$ $-I_C = 200mA; -V_{CE} = 5V$ $f = 1kHz; B = 200Hz$	F	<	10	dB

Ratings (at $T_a = 25^{\circ}C$ unless otherwise specified)

Limiting Values	Symbol	-	BC858C	Units
Collector-Base Voltage (Open Emitter)	V_{CBO}	Max.	30	V
Collector-Emitter Voltage ($+V_{BE} = 1V$)	V_{CEX}			
Collector-Emitter Voltage (Open Base)	V_{CEO}			
Emitter-Base Voltage (Open Collector)	V_{EBO}		5	mA
Collector Current (DC)	I_C		100	
Collector Current (Peak Value)	I_{CM}		200	

SOT23 PNP Transistor



Ratings (at $T_A = 25^\circ\text{C}$ unless otherwise specified)

Limiting Values	Symbol	-	BC858C	Units
Emitter Current (Peak Value)	I_{EM}	Max.	200	mA
Base Current (Peak Value)	I_{BM}			
Total Power Dissipation* up to T_a : 60°C	P_{tot}		250	mW
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$
Junction Temperature	T_j		150	

Thermal Characteristics

$T_j = P_x (R_{th\ j-t} + R_{th\ t-s} + R_{th\ s-a}) + T_a$	-	-	-	-
Thermal Resistance	-	-	-	-
From Junction to Tab	$R_{th\ (j-t)}$	=	60	K/W
From Tab to Soldering Points	$R_{th\ (t-s)}$		280	
From Soldering Points to Ambient	$R_{th\ (s-a)}$		90	

Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)

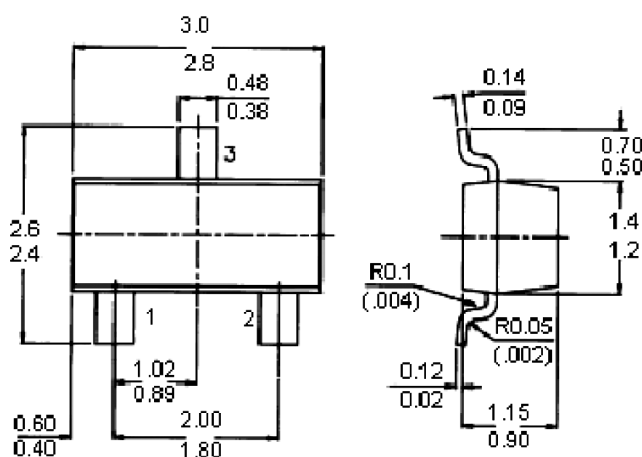
Limiting Values	Symbol	-	BC858C	Units
Collector Cut off Current $I_E = 0$; $-V_{CB} = 30\text{V}$ $T_j = 25^\circ\text{C}$ $T_j = 150^\circ\text{C}$	I_{CBO}	Typ. < <	1 15 4	nA nA mA
Base-Emitter Voltage $-I_C = 2\text{mA}$; $-V_{CE} = 5\text{V}$ $-I_C = 10\text{mA}$; $-V_{CE} = 5\text{V}$	V_{BE} V_{BE}	Typ. <	650 600 to 750 820	mV
Saturation Voltage $-I_C = 10\text{mA}$; $-I_B = 0.5\text{mA}$ $-I_C = 100\text{mA}$; $-I_B = 5\text{mA}$	$V_{CE\ (sat)}$ $V_{BE\ (sat)}$ $V_{CE\ (sat)}$ $V_{BE\ (sat)}$	Typ. < Typ. Typ. < Typ.	75 300 700 250 650 850	
Knee Voltage $-I_C = 10\text{mA}$; $-I_B = \text{Value For Which}$ $-I_C = 11\text{mA}$ at $-V_{CE} = 1\text{V}$	V_{CEK}	Typ. <	250 600	
Collector Capacitance at $f = 1\text{MHz}$ $I_E = I_C = 0$; $-V_{CB} = 10\text{V}$	C_C	Typ.	4.5	pF
Transition Frequency at $f = 100\text{MHz}$ $-I_C = 10\text{mA}$; $-V_{CE} = 5\text{V}$	f_T	>	100	MHz

SOT23 PNP Transistor



Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)

Limiting Values	Symbol	-	BC858C	Units
Small Signal Current Gain at $f = 1\text{kHz}$ $-I_C = 2\text{mA}$; $-V_{CE} = 5\text{V}$	h_{fe}	Min.	420 to 800	-
Noise Figure at $R_S = 2\text{KW}$ $-I_C = 200\text{mA}$; $-V_{CE} = 5\text{V}$; $f = 1\text{kHz}$; $B = 200\text{Hz}$	F	Typ. <	2 10	dB
DC Current Gain $-I_C = 2\text{mA}$; $-V_{CE} = 5\text{V}$	h_{FE}	-	420 to 800	-



Pin Configuration:

1. Base
2. Emitter
3. Collector

Dimensions : Millimetres

Part Number Table

Description	Part Number
Transistor, PNP, SOT-23	BC858C

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