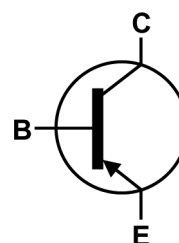


Features:

- Silicon planar epitaxial transistors
- PNP Transistors



Device Symbol

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°C	P _{tot}		250	mW
Junction Temperature	T _j		150	°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°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	

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 $T_a: 60^\circ\text{C}$	P_{tot}		250	mW
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$
Junction Temperature	T_j		150	

Thermal Characteristics

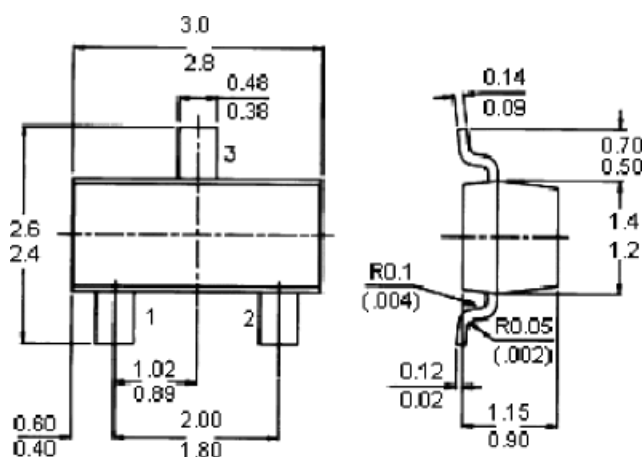
$T_j = P_x (R_{th\ j-t} + R_{th\ t-s} + R_{th\ s-a}) + T_a$	-	-	-	-
Thermal Resistance	-	-	-	-
From Junction to Tab	$R_{th\ (j-t)}$	=	60	K/W
From Tab to Soldering Points	$R_{th\ (t-s)}$		280	
From Soldering Points to Ambient	$R_{th\ (s-a)}$		90	

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

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

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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