

SOT-23 Plastic-Encapsulate Transistors

BC858

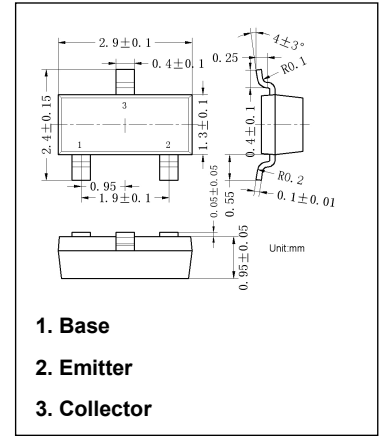
PNP Transistors

Features

- Ideally suited for automatic insertion
- For switching and AF amplifier applications

Marking

- BC858A: 3J
- BC858B: 3K
- BC858C: 3L



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

Symbol	Parameter	Value	Unit
V_{CB0}	Collector Base Voltage	-30	V
V_{CEO}	Collector Emitter Voltage	-30	V
V_{EBO}	Emitter Base Voltage	-5	V
I_c	Collector Current	-0.1	A
P_c	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	625	$^\circ\text{C/W}$
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	- 55 to +150	$^\circ\text{C}$

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_c = -10\mu\text{A}$, $I_E = 0$	-30			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_c = -10\text{mA}$, $I_B = 0$	-30			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E = -1\mu\text{A}$, $I_C = 0$	-5			V
I_{CBO}	Collector cut-off current	$V_{CB} = -45\text{V}$, $I_E = 0$			-100	nA
I_{CEO}	Collector cut-off current	$V_{CE} = -40\text{V}$, $I_B = 0$			-100	nA
I_{EBO}	Emitter cut-off current	$V_{EB} = -5\text{V}$, $I_C = 0$			-100	nA
h_{FE}	DC current gain	BC858A	$V_{CE} = -5\text{V}$, $I_C = -2\text{mA}$		125	
		BC858B			220	
		BC858C			420	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_c = -100\text{mA}$, $I_B = -5\text{mA}$			-0.5	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_c = -100\text{mA}$, $I_B = -5\text{mA}$			-1.1	V
f_r	Transition frequency	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$, $f = 100\text{MHz}$	100			MHz
C_{ob}	Collector output capacitance	$V_{CB} = -10\text{V}$, $f = 1\text{MHz}$			4.5	pF

Typical Characteristics

