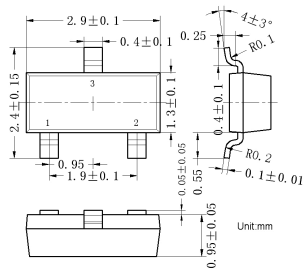
SHENZHEN LONG JING MICRO-ELECTRONICS CO., LTD.

SOT-23 Plastic-Encapsulate Transistors

BC848B NPN Transistors



1. Base
2. Emitter
3. Collector

Features

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

Marking

- BC848A: 1J
- BC848B: 1K
- BC848C: 1L

Maximum Ratings (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	30	V
V_{CEO}	Collector Emitter Voltage	30	V
V_{EBO}	Emitter Base Voltage	6	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	°C/W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	- 55 to +150	°C

Electrical Characteristics (T_a=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions		Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=10μA, I_E=0		30			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=10mA, I_B=0		30			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=10μA, I_C=0		6			V
I_{CBO}	Collector cut-off current	V_{CB}=30V, I_E=0				100	nA
I_{CEO}	Collector cut-off current	V_{CE}=30V, I_B=0				100	nA
I_{EBO}	Emitter cut-off current	V_{EB}=5V, I_C=0				100	nA
h_{FE}	DC current gain	BC848A	V_{CE} = 5V, I_C = 2mA	110		220	
		BC848B		200		450	
		BC848C		420		800	
		V_{CE} = 5V, I_C = 2mA		110			
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C = 100mA, I_B = 5mA				0.5	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C = 100mA, I_B = 5mA				1.1	V
f_T	Transition frequency	V_{CE}=5V, I_C=10mA, f=100MHz		100			MHz
C_{ob}	Collector output capacitance	V_{CB} = 10V, f = 1MHz				4.5	pF

Typical Characteristics