

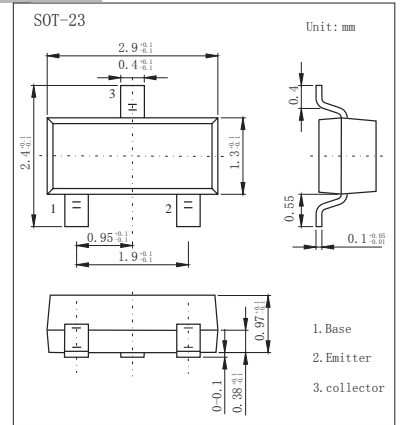
## SOT-23 Plastic-Encapsulate Transistors

### FEATURE

- Ideally suited for automatic insertion
- Epitaxial planar die construction
- Complementary NPN type available(BC817)
- TRANSISTOR (PNP)

### MECHANICAL DATA

- Case style:SOT-23 molded plastic
- Mounting position:any



### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-50	V
$V_{CE0}$	Collector-Emitter Voltage	-45	V
$V_{EB0}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-500	mA
$P_C$	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	°C/W
$T_j$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55~+150	°C

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{CB0}$	$I_C = -10\mu A, I_E = 0$	-50		V
Collector-emitter breakdown voltage	$V_{CE0}$	$I_C = -10mA, I_B = 0$	-45		V
Emitter-base breakdown voltage	$V_{EB0}$	$I_E = -1\mu A, I_C = 0$	-5		V
Collector cut-off current	$I_{CB0}$	$V_{CB} = -45V, I_E = 0$		-0.1	$\mu A$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -4V, I_C = 0$		-0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -100mA$	100	600	
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -500mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$		-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA$		-1.2	V
Transition frequency	$f_T$	$V_{CE} = -5V, I_C = -10mA$ $f = 100MHz$	100		MHz

#### CLASSIFICATION OF $h_{FE(1)}$

Rank	BC807-16	BC807-25	BC807-40
Range	100-250	160-400	250-600
Marking	5A	5B	5C

# RATINGS AND CHARACTERISTIC CURVES

