



NPN Silicon Epitaxial Planar Transistors

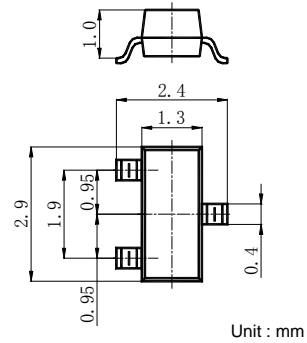
BC817-16LT1

BC817-25LT1

BC817-40LT1

SOT—23

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



FEATURES

Power dissipation

$$P_{CM} : 0.3 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

$$I_{CM} : 0.5 \text{ A}$$

Collector-base voltage

$$V_{CBO} : 50 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^\circ\text{C to } +150^\circ\text{C}$$

ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V_{CBO}	$I_C = 10 \mu\text{A}, I_E = 0$	50		V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 10 \text{ mA}, I_B = 0$	45		V
Emitter-base breakdown voltage	V_{EBO}	$I_E = 1 \mu\text{A}, I_C = 0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB} = 45 \text{ V}, I_E = 0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 40 \text{ V}, I_B = 0$		0.2	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4 \text{ V}, I_C = 0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 1 \text{ V}, I_C = 100\text{mA}$	100 160 250	250 400 600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50 \text{ mA}$		0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50\text{mA}$		1.2	V
Transition frequency	f_T	$V_{CE} = 5 \text{ V}, I_C = 10\text{mA}$ $f = 100\text{MHz}$	100		MHz

DEVICE MARKING

BC817-16LT1=6A; BC817-25LT1=6B; BC817-40LT1=6C