



SOT-23 Plastic-Encapsulate Transistors

C945LT1 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM}: 0.2 \text{ W (Tamb=25}^{\circ}\text{C)}$$

Collector current

$$I_{CM}: 0.15 \text{ A}$$

Collector-base voltage

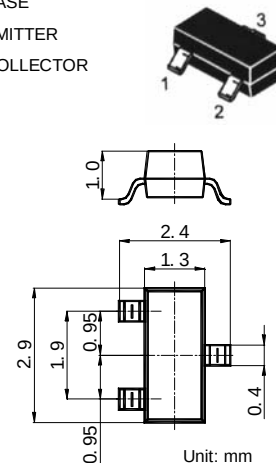
$$V_{(BR)CBO}: 60 \text{ V}$$

Operating and storage junction temperature range

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

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 1\text{mA}, I_E = 0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.1\text{mA}, I_B = 0$	50			V
Collector-emitter breakdown voltage	$V_{(BR)EBO}$	$I_C = 100\mu\text{A}, I_B = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 60\text{V}, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CB} = 45\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 6\text{V}, I_C = 1\text{mA}$	130		400	
	$h_{FE(2)}$	$V_{CE} = 6\text{V}, I_C = 0.1\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$			1	V
Base-emitter voltage	V_{BEF}	$I_E = 310\text{mA}$			1.4	V
Transition frequency	f_T	$V_{CE} = 6\text{V}, I_C = 10\text{mA}$ $f = 30\text{MHz}$	150			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	130-200	200-400
MARKING	CR	