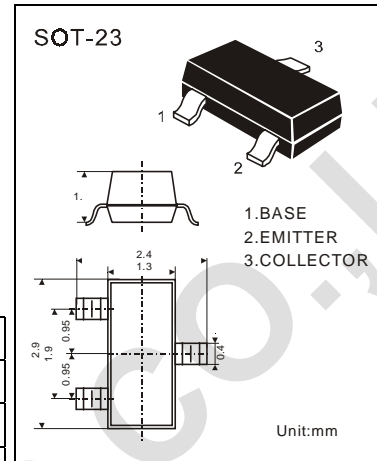


NPN EPITAXIAL SILICON TRANSISTOR

- \* Collector Current:  $I_c = 150\text{mA}$
- \* Collector-Emitter Voltage:  $V_{ce} = 50\text{V}$
- \* High Total Power Dissipation:  $P_c = 225\text{mW}$
- \* High  $H_{fe}$  And Good Linearity



**ABSOLUTE MAXIMUM RATINGS at  $T_a = 25^\circ\text{C}$**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{cbo}$	60	V
Collector-Emitter Voltage	$V_{ceo}$	50	V
Collector Current	$I_c$	150	mA
Collector Dissipation $T_a = 25^\circ\text{C}^*$	$P_D$	225	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55-150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS at  $T_a = 25^\circ\text{C}$**

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$BV_{cbo}$	60			V	$I_c = 100\mu\text{A}$ $I_e = 0$
Collector-Emitter Breakdown Voltage#	$BV_{ceo}$	50			V	$I_c = 1\text{mA}$ $I_b = 0$
Collector-Base Cutoff Current	$I_{cbo}$			100	nA	$V_{cb} = 60\text{V}$ $I_e = 0$
DC Current Gain	$H_{fe}$	70		700		$V_{ce} = 6\text{V}$ $I_c = 1\text{mA}$
Collector-Emitter Saturation Voltage	$V_{ce(sat)}$			0.3	V	$I_c = 100\text{mA}$ $I_b = 10\text{mA}$
Output Capacitance	$C_{ob}$		2.2	3.5	PF	$V_{cb} = 10\text{V}$ $I_e = 0$ $f = 1\text{MHz}$
Current Gain-Bandwidth Product	$f_T$		150		MHz	$V_{ce} = 5\text{V}$ $I_c = 10\text{mA}$

\* Total Device Dissipation :  $FR = 1 \times 0.75 \times 0.062\text{in Board}$ , Derate  $25^\circ\text{C}$ .

# Pulse Test : Pulse Width  $\leq 300\mu\text{s}$ , Duty cycle  $\leq 2\%$

DEVICE MARKING:

2SC945LT1=HF