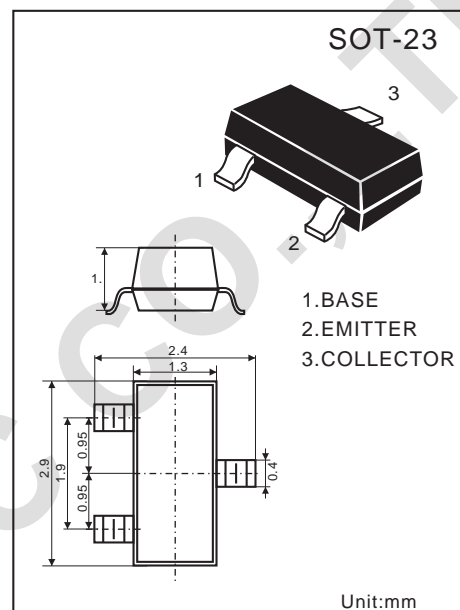


## TRANSISTOR (NPN)

### Features

- Power dissipation  
 $P_{CM} : 0.225 \text{ W (Tamb}=25 \text{ C)}$
- Pluse Drain  
 $I_{CM} : 0.6 \text{ mA}$
- Reverse Voltage  
 $V_{(BR)CBO} : 60\text{V}$
- Operating and storage junction temperature range  
 $T_j, T_{stg} : -55^{\circ}\text{C to } +150^{\circ}\text{C}$

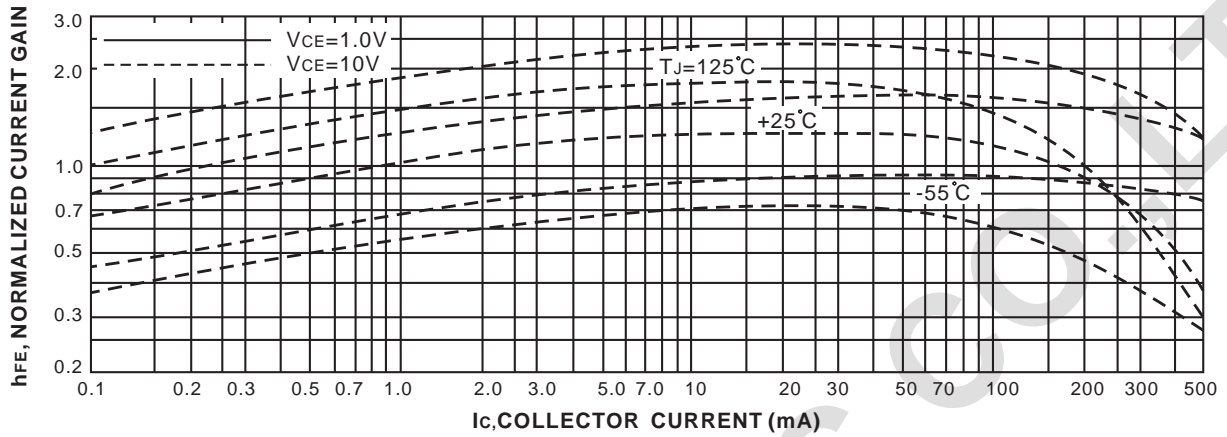


### Electrical Characteristics

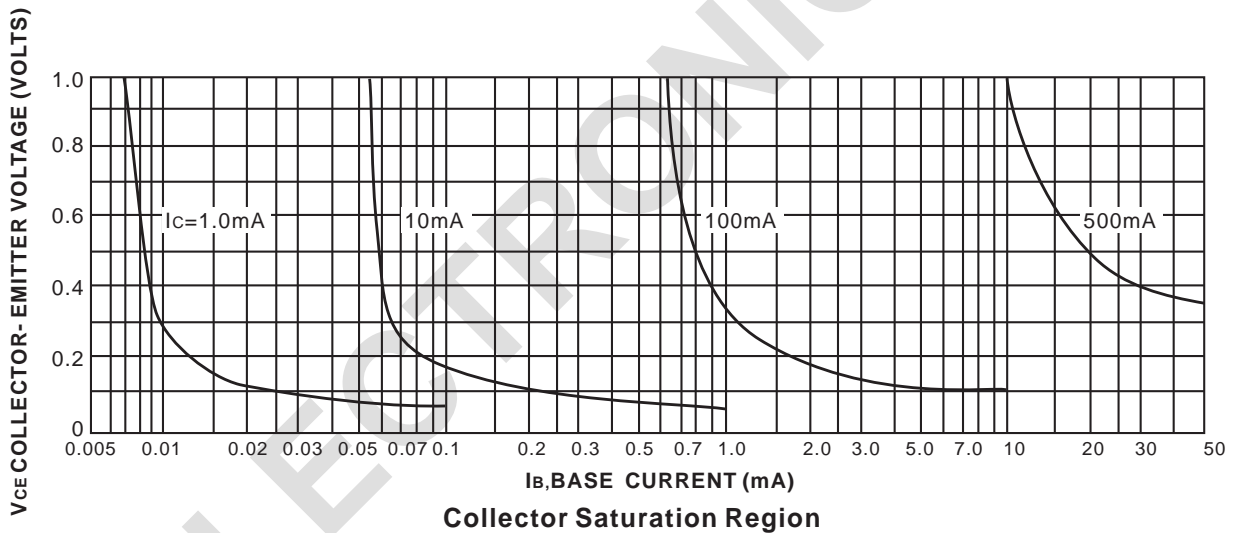
(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	60			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1 \text{ mA}, I_B=0$	40			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	6			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=50\text{V}, I_E=0$			0.1	$\mu\text{A}$
Collector Cut-off Current	$I_{CEO}$	$V_{CB}=35\text{V}, I_B=0$			0.1	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC Current Gain (Note)	$H_{FE(1)}$	$V_{CE}=1\text{V}, I_C=150\text{mA}$	100		300	
	$H_{FE(2)}$	$V_{CE}=2, I_C=500\text{mA}$	40			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=150\text{mA}, I_B=15\text{mA}$			0.4	V
Base-emitter saturatio voltage	$V_{BE(sat)}$	$I_C=150\text{mA}, I_B=15\text{mA}$			0.95	V
Transition Frequency	$f_T$	$V_{CE}=10\text{V}, I_C=20\text{mA}, f=100\text{MHz}$	250			Mhz

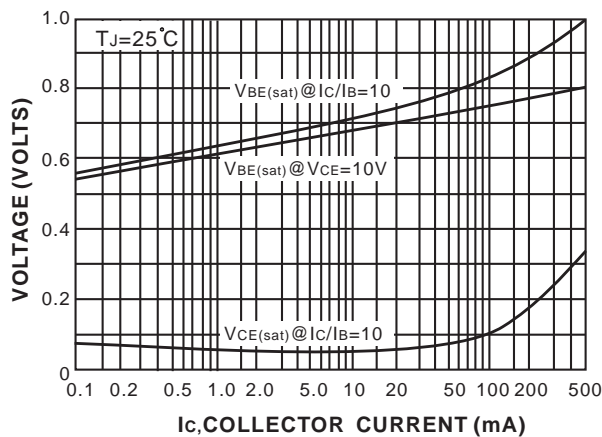
## Typical Characteristics



DC Current Gain



Collector Saturation Region



"On" Voltages