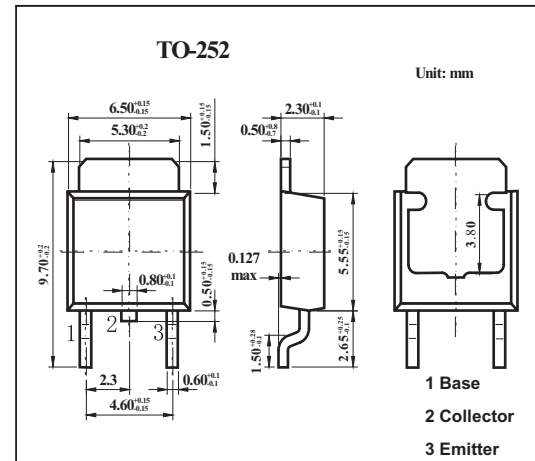


## NPN Silicon Epitaxial Transistor

## 2SC2983

## ■ Features

- High Transition Frequency:  $f_T=100\text{MHz(TYP.)}$

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CB0}$	160	V
Collector to emitter voltage	$V_{CE0}$	160	V
Emitter to base voltage	$V_{EB0}$	5	V
Collector current	$I_C$	1.5	A
Base Current	$I_B$	0.3	A
Total Power dissipation $T_a = 25^\circ\text{C}$	$P_C$	1	W
$T_c = 25^\circ\text{C}$		15	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
collector cutoff current	$I_{CBO}$	$V_{CB}=160\text{V}, I_E=0$			1	$\mu\text{A}$
emitter cutoff current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			1	$\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	160			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$	5			V
DC current Gain	$h_{FE}$	$V_{CE}=5\text{V}, I_C=100\text{mA}$	70		240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			1.5	V
Base- Emitter Voltage	$V_{BE}$	$V_{CE}=5\text{V}, I_C=500\text{mA}$			1	V
Transition Frequency	$f_T$	$V_{CE}=10\text{V}, I_C=100\text{mA}$		100		MHz
Collector Output Capacitance	$c_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		25		pF

## ■ hFE Classification

Marking	O	Y
hFE	70 to 140	120 to 240