

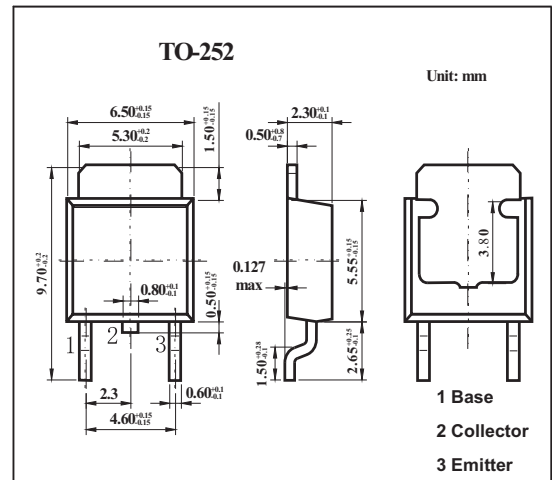
TO-252 Plastic-Encapsulate Transistors

Features

- High Transition Frequency: $f_t=100\text{MHz}$ (TYP.)
- NPN Silicon Epitaxial Transistor

MECHANICAL DATA

- Case style: TO-252 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

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	°C
Storage temperature	T_{stg}	-55 to +150	°C

PACKAGE INFORMATION

Device	Package	Shipping
2SC2983	TO-252	2500/Tape&Reel

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
collector cutoff current	I_{CBO}	$V_{CB}=160\text{V}, I_E=0$			1	μA
emitter cutoff current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			1	μA
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