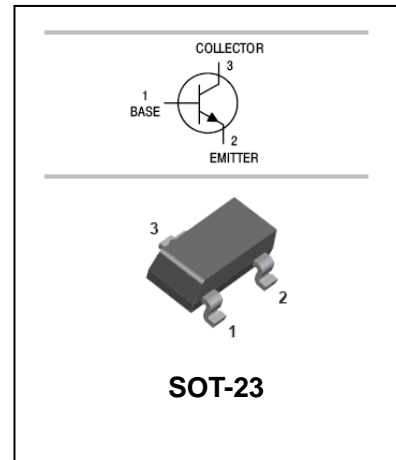


## Silicon Epitaxial Planar Transistor

## 2SC1654

### FEATURES

- High DC current gain: $h_{FE}=130$ (Typ)  
( $V_{CE}=3V, I_C=15mA$ )
- High voltage.



### APPLICATIONS

- Audio frequency general purpose amplifier applications.

### ORDERING INFORMATION

Type No.	Marking	Package Code
2SC1654	N5/N6/N7	SOT-23

### MAXIMUM RATING @ $T_a=25^{\circ}C$ unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	180	V
$V_{CEO}$	Collector-Emitter Voltage	160	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	50	mA
$P_C$	Collector Dissipation	150	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55~150	$^{\circ}C$

### ELECTRICAL CHARACTERISTICS @ $T_a=25^{\circ}C$ unless otherwise specified

## Silicon Epitaxial Planar Transistor

## 2SC1654

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	160			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=130V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=3V, I_C=15mA$ $V_{CE}=3V, I_C=5mA$	90 70		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			0.3	V
Base-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50mA, I_B=5mA$			1	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=10mA$	120			MHz
Output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1kHz$		2.3		pF

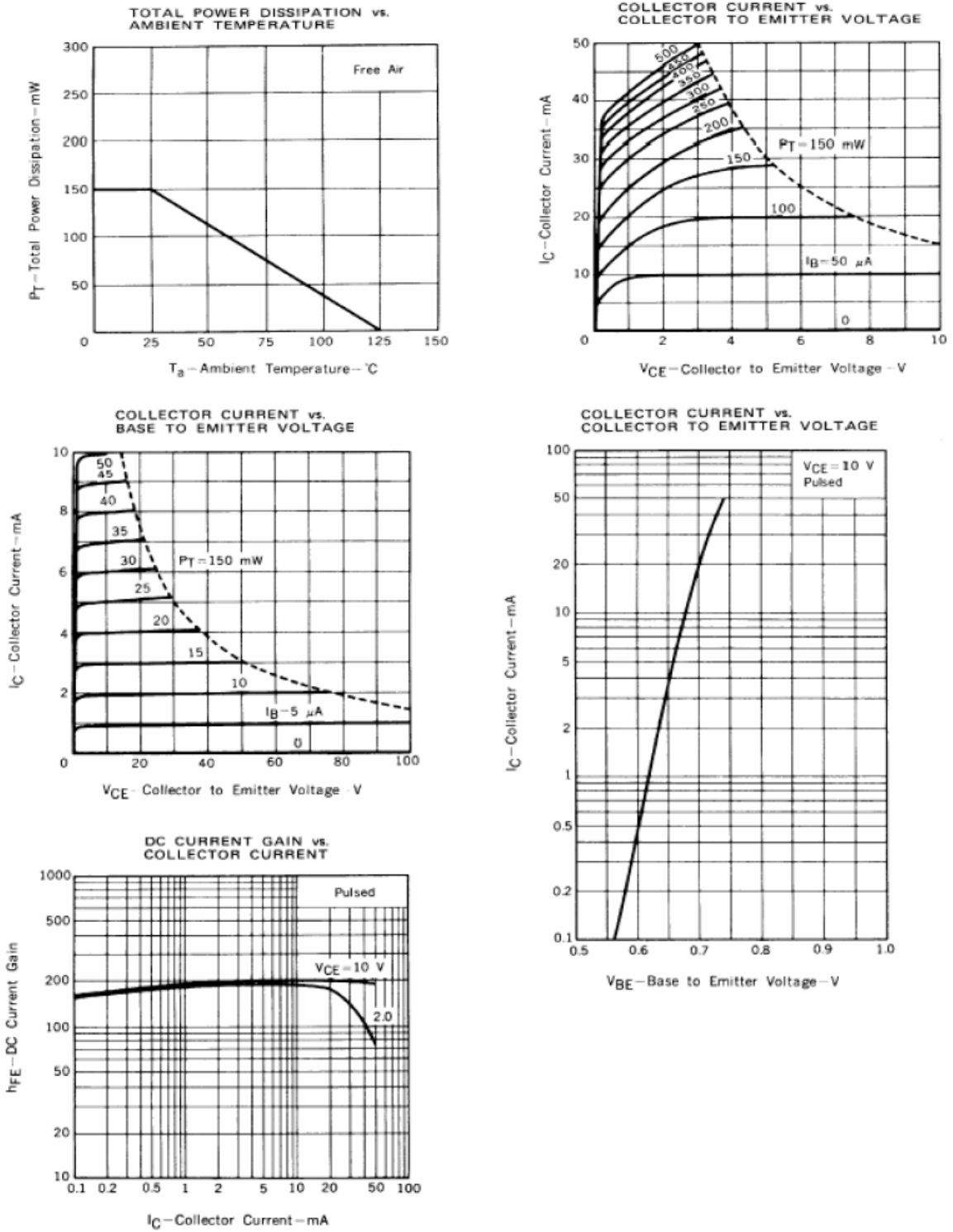
### CLASSIFICATION OF $h_{FE(1)}$

Rank	N5	N6	N7
Range	90-180	135-270	200-400
Marking	N5	N6	N7

## Silicon Epitaxial Planar Transistor

## 2SC1654

TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified



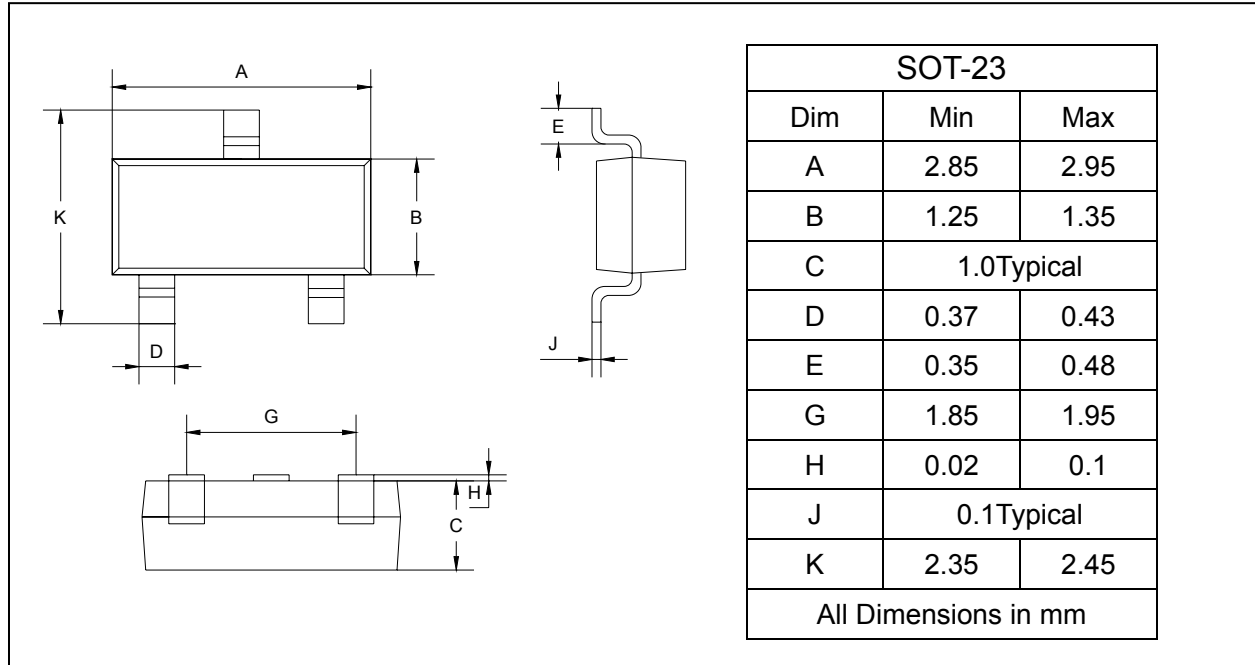
## Silicon Epitaxial Planar Transistor

## 2SC1654

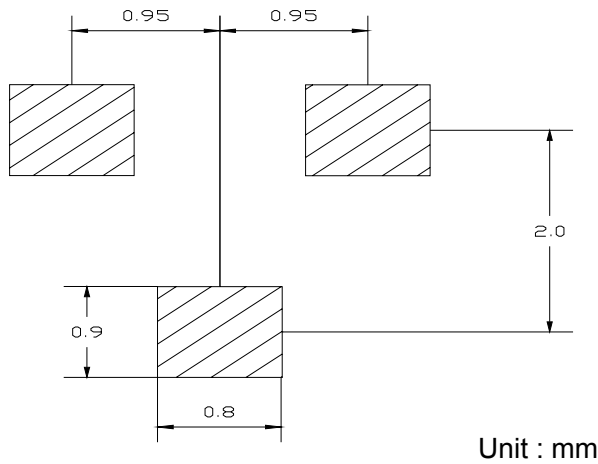
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
2SC1654	SOT-23	3000/Tape&Reel