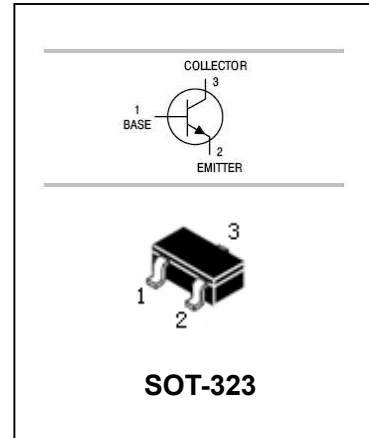


## Silicon Epitaxial Planar Transistor

## 2SC4102

### FEATURES

- Excellent  $h_{FE}$  linearity.
- Power dissipation:  $P_{CM}=200mW$



### APPLICATIONS

- NPN Silicon Epitaxial Planar Transistor.

### ORDERING INFORMATION

Type No.	Marking	Package Code
2SC4102	TP/TR/TS	SOT-323

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	120	V
$V_{CEO}$	Collector-Emitter Voltage	120	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current -Continuous	50	mA
$P_C$	Collector Dissipation	200	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55 to +150	$^{\circ}C$

Silicon Epitaxial Planar Transistor

**2SC4102**

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu A, I_E=0$	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=100V, I_E=0$			0.5	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V, I_C=0$			0.5	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=6V, I_C=2mA$	120		560	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_{CE}=10mA, I_B=1mA$			0.5	V
Transition frequency	$f_T$	$V_{CE}=12V, I_C=2mA, f=100MHz$		140		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=12V, I_E=0, f=1MHz$		2.5		pF

CLASSIFICATION OF  $h_{FE}$

Rank	P	R	S
Range	120-270	180-390	270-560
Marking	TP	TR	TS

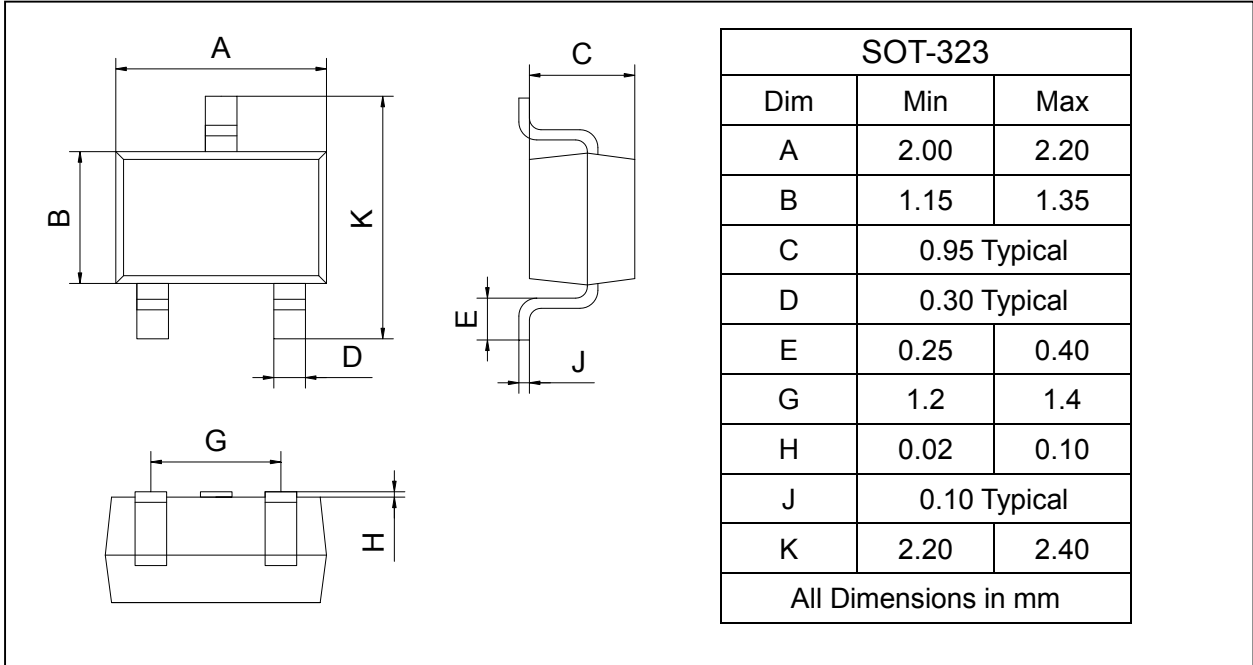
**Silicon Epitaxial Planar Transistor**

**2SC4102**

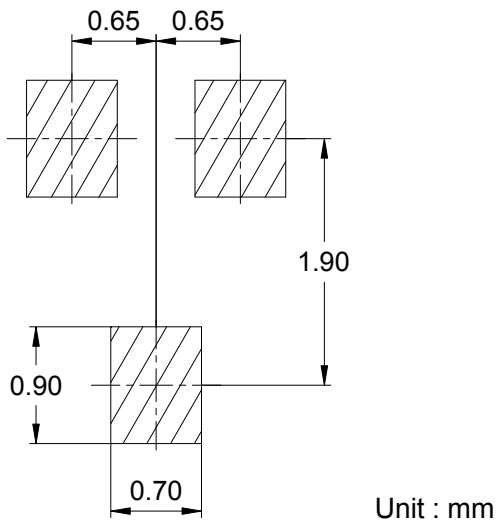
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-323



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
2SC4102	SOT-323	3000/Tape&Reel