

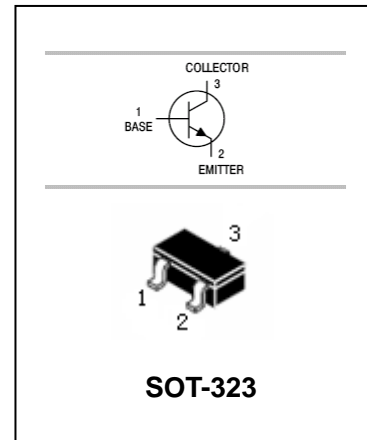


Silicon Epitaxial Planar Transistor

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	$^{\circ}C$



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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	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.5	μA
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

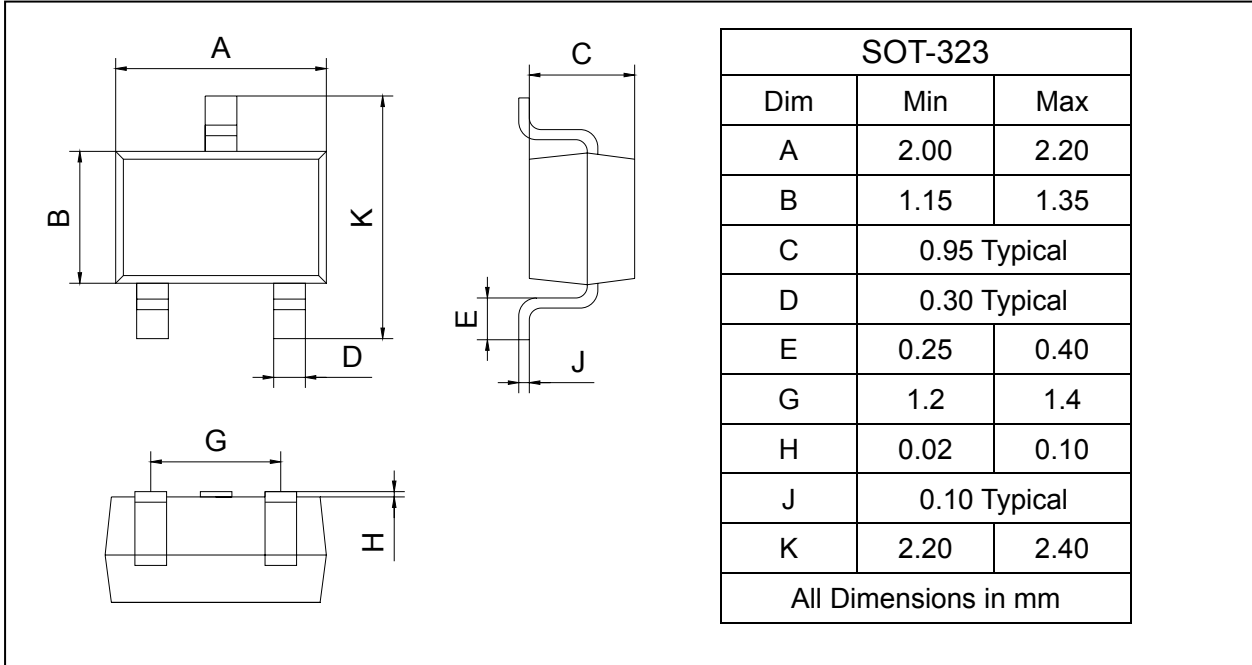
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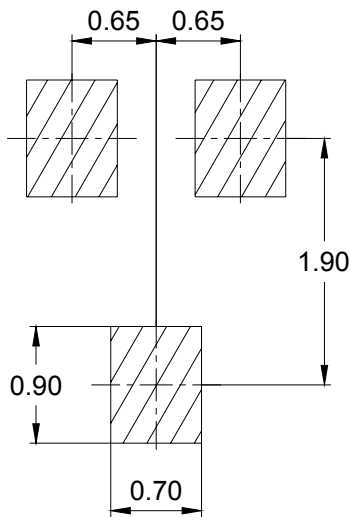
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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