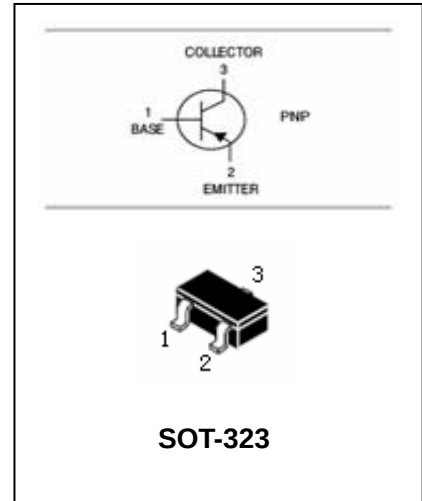


PNP Silicon Epitaxial Planar Transistor

2SA1611

FEATURES

- High voltage $V_{CEO}=-50V$.
- Excellent H_{FE} Linearity.
- High DC current gain : $h_{FE}=200$ typ.
- Complementary to 2SC4177.



APPLICATIONS

- Audio frequency general purpose amplifier applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1611	M4/M5/M6/M7	SOT-323

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-100	mA
P_C	Collector Dissipation	150	mW
T_j, T_{stg}	Junction and Storage Temperature	-55~150	$^{\circ}C$

PNP Silicon Epitaxial Planar Transistor

2SA1611

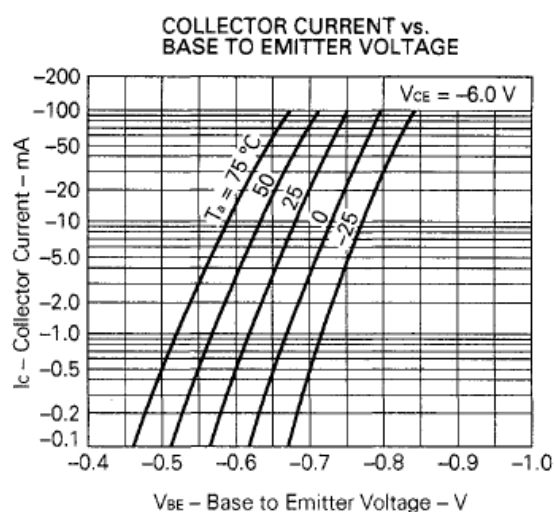
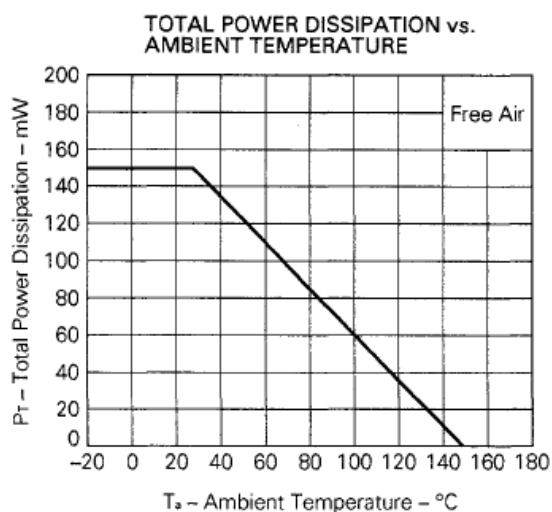
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	90	200	600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$		-0.18	-0.3	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -10mA$	180			MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4.5		pF

CLASSIFICATION OF h_{FE}

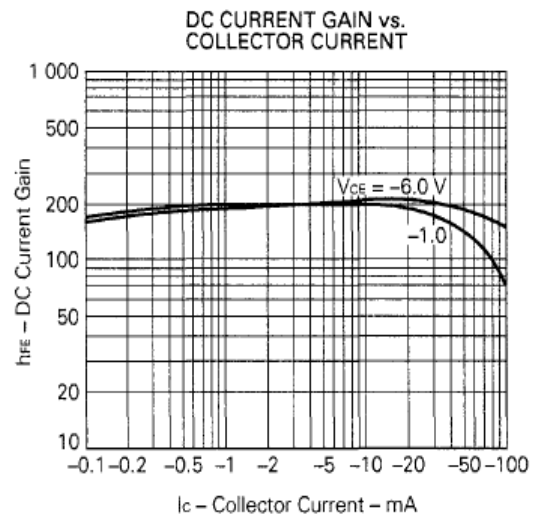
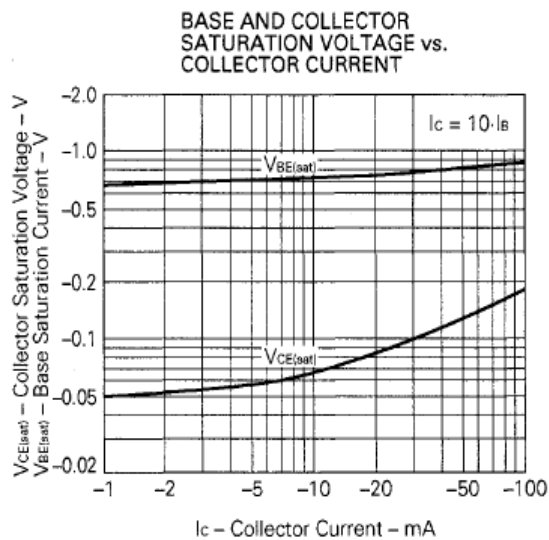
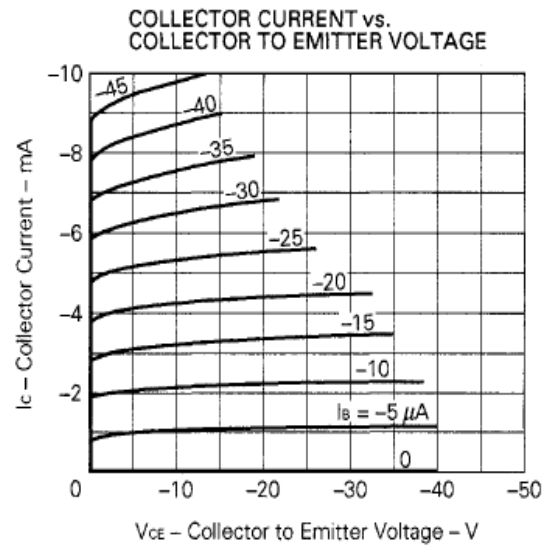
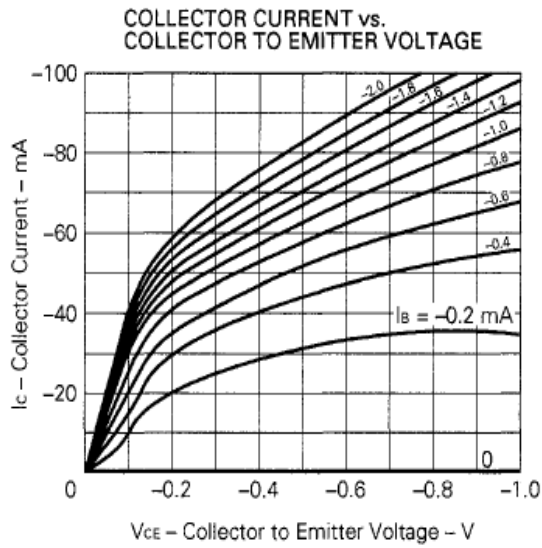
Range	90-180	135-270	200-400	300-600
marking	M4	M5	M6	M7

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



PNP Silicon Epitaxial Planar Transistor

2SA1611



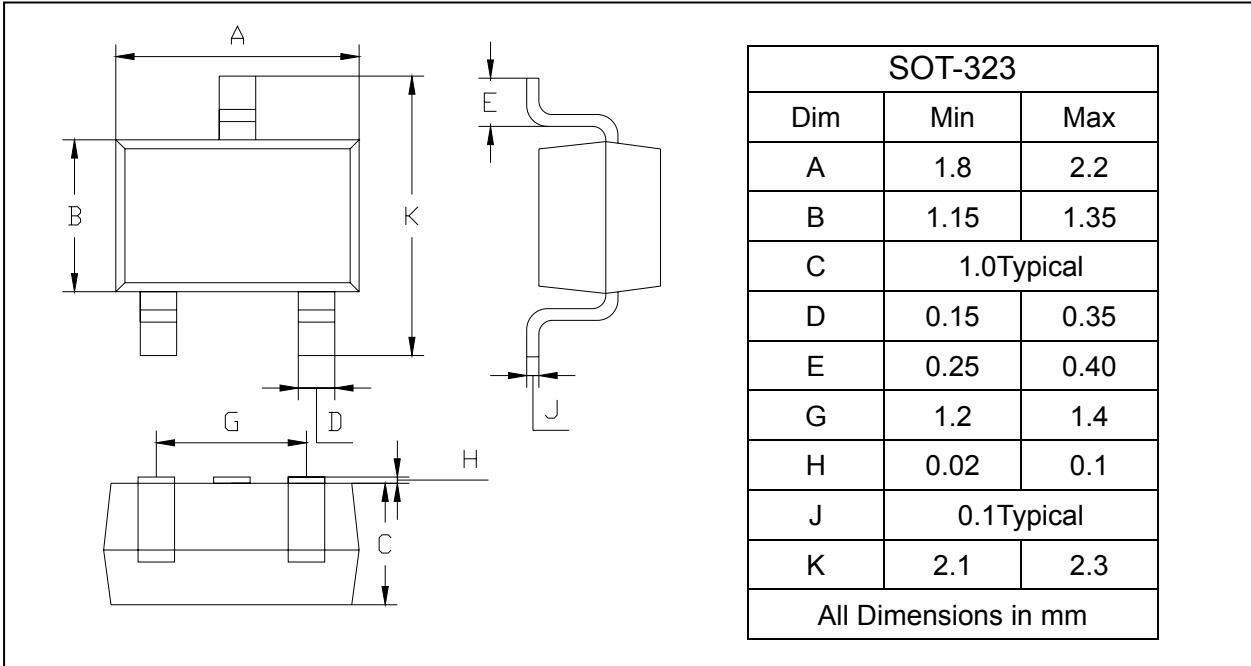
PNP Silicon Epitaxial Planar Transistor

2SA1611

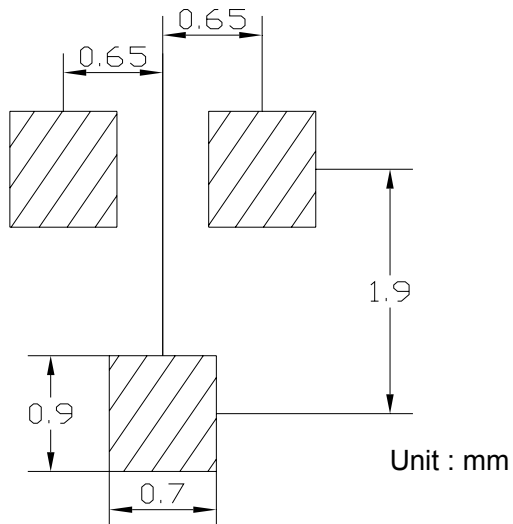
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SA1611	SOT-323	3000/Tape&Reel