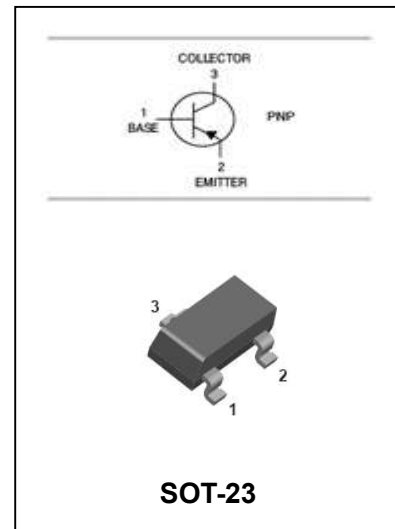


Silicon Epitaxial Planar Transistor

STA124S

FEATURES

- Suitable for low voltage large current drivers.
- Complementary To STD123S.
- High DC current gain and large current capability.



APPLICATIONS

- High Collector Current.

ORDERING INFORMATION

Type No.	Marking	Package Code
STA124S□	124	SOT-23

□: none is for Lead Free package;
“G” is for Halogen Free package.

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	-15	V
V _{CEO}	Collector-Emitter Voltage	-12	V
V _{EBO}	Emitter-Base Voltage	-6.5	V
I _C	Collector Current -Continuous	-1	A
P _C	Collector Dissipation	350	mW
T _j , T _{stg}	Junction and Storage Temperature	-55 to +150	°C

Silicon Epitaxial Planar Transistor

STA124S

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu A, I_E = 0$	-15			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-12			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu A, I_C = 0$	-6.5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -15V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -1V, I_C = -100mA$	200		450	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$		-0.2	-0.4	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -50mA$		260		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		5		pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Fig. 1 $P_C - T_a$

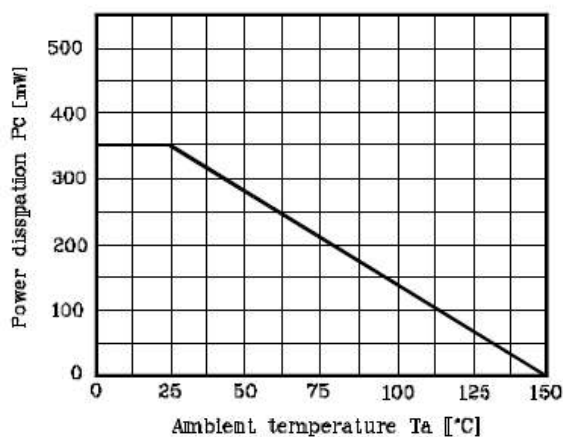
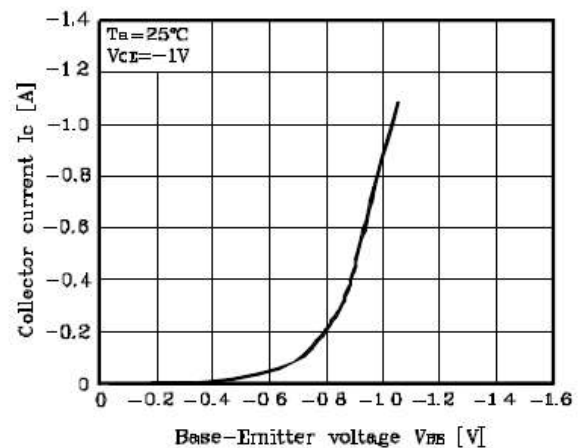


Fig. 2 $I_C - V_{BE}$



Silicon Epitaxial Planar Transistor

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Fig. 3 $h_{FE}-I_C$

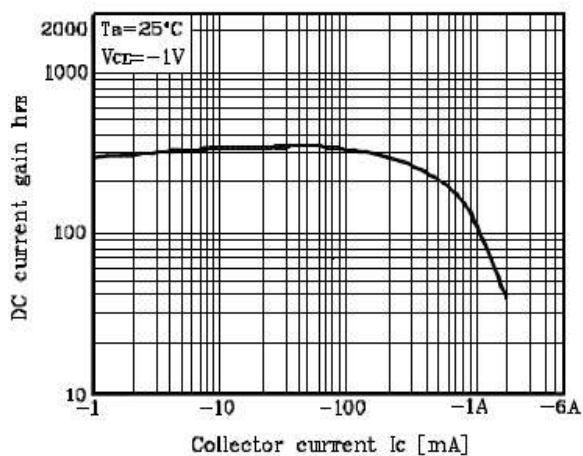
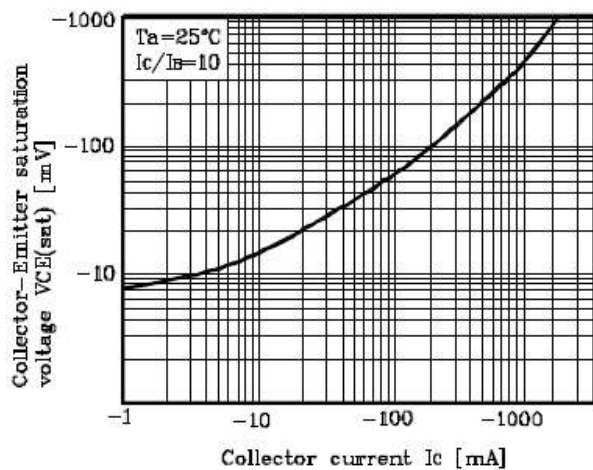


Fig. 4 $V_{CE(sat)}-I_C$



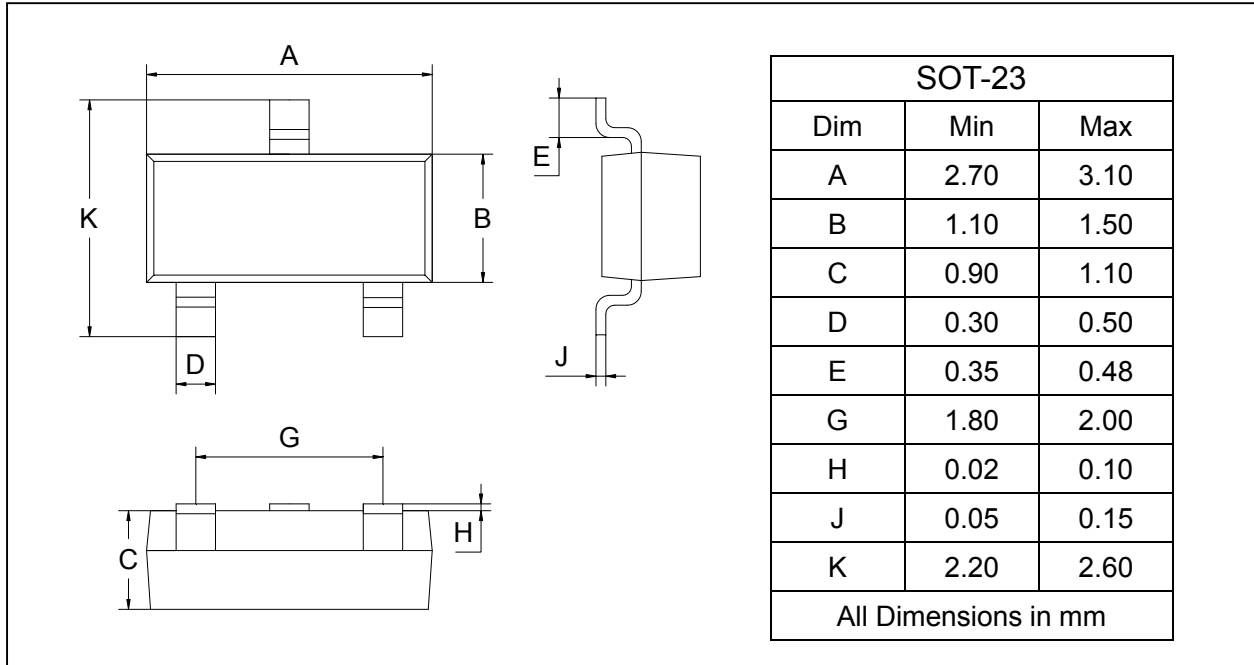
Silicon Epitaxial Planar Transistor

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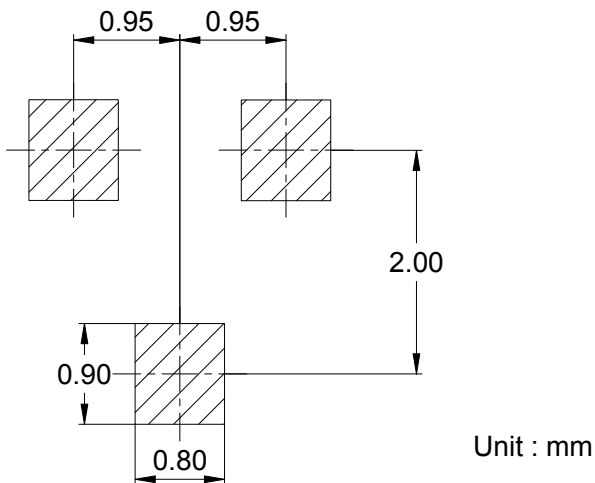
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
STA124S	SOT-23	3000/Tape&Reel