

Silicon Epitaxial Planar Transistor

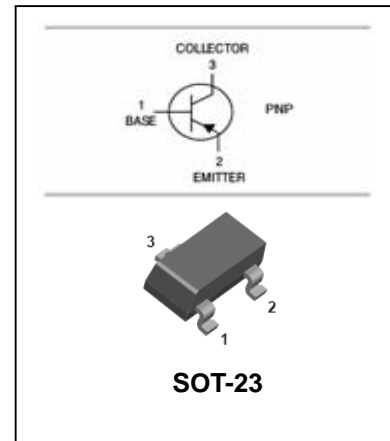
2SA1235A

FEATURES

- Small collector to emitter saturation voltage
 $V_{CE(sat)} = -0.3V$ max(@ $I_C = -100mA, I_B = -10mA$).
- Excellent lineary DC forward current gain.
- Super mini package for easy mounting.



Lead-free



SOT-23

APPLICATIONS

- PNP epitaxial type transistor designed for low frequency.
- Voltage amplify application.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1235A	ME/MF/MG	SOT-23

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current -Continuous	-200	mA
P_C	Collector Dissipation	150	mW
T_j, T_{stg}	Junction and Storage Temperature	-55~125	$^\circ C$

Silicon Epitaxial Planar Transistor

2SA1235A

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -0.1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-6			V
Collector cut-off current	I_{CBO}	$V_{CB} = -50V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$ $V_{CE} = -6V, I_C = -0.1mA$	150 90		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$			-0.3	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -10mA$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -6V, I_E = 0, f = 1MHz$		4		pF
Noise figure	NF	$V_{CE} = -6V, I_E = 0.3mA,$ $f = 100MHz, R_G = 10k\Omega$			20	dB

CLASSIFICATION OF $h_{FE(1)}$

Rank	E	F	G
Range	150-300	250-500	400-800
Marking	ME	MF	MG

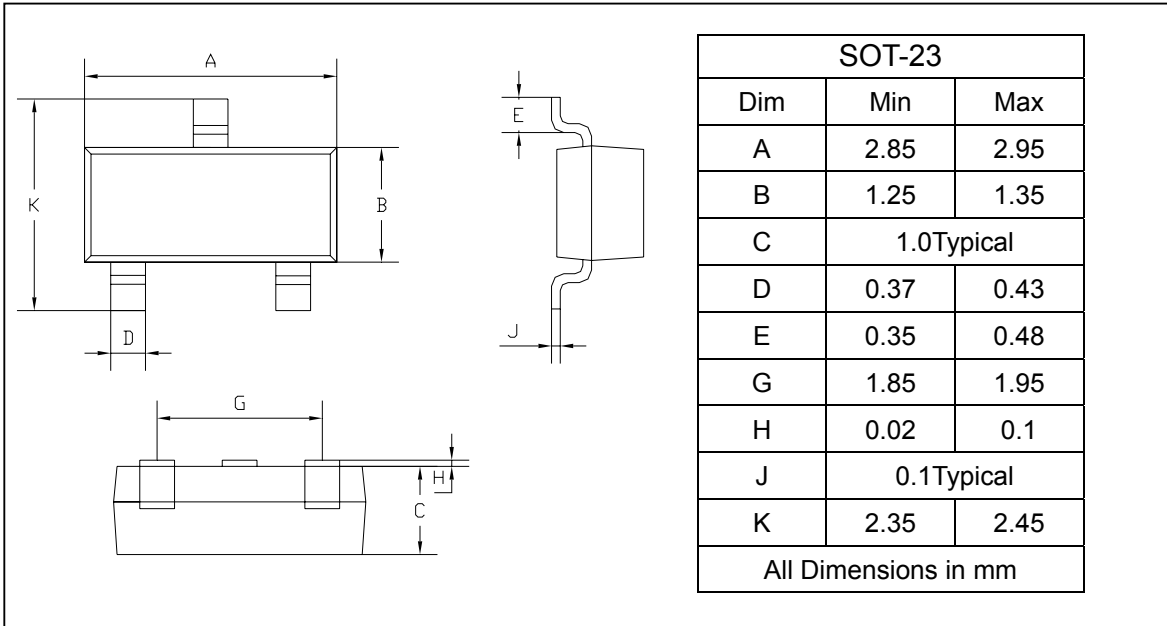
Silicon Epitaxial Planar Transistor

2SA1235A

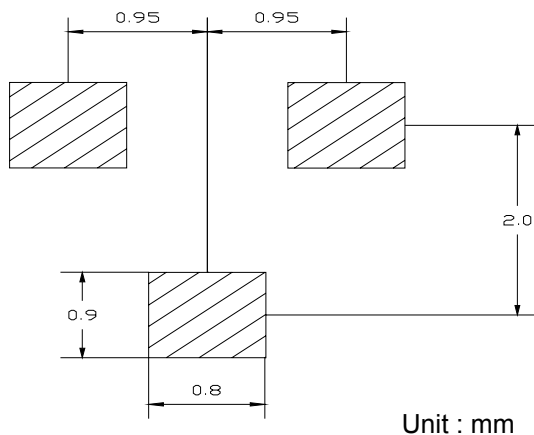
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SA1235A	SOT-23	3000/Tape&Reel