

## Silicon Epitaxial Planar Transistor

## 2SA1235A

### FEATURES

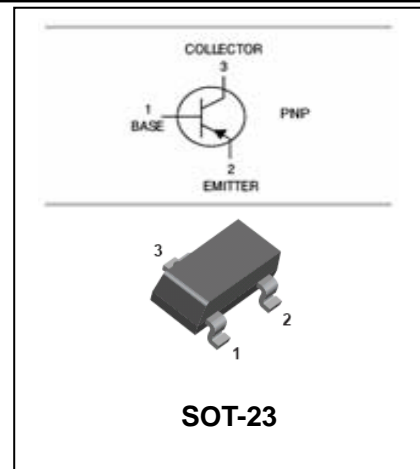
- Small collector to emitter saturation voltage  
 $V_{CE(sat)} = -0.3V \text{ max} (@I_C = -100mA, I_B = -10mA)$ .
- Excellent lineary DC forward current gain.
- Super mini package for easy mounting.



Lead-free

### APPLICATIONS

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



SOT-23

### ORDERING INFORMATION

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

### MAXIMUM RATING @ Ta=25°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	°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	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -6V, I_C = 0$			-0.1	$\mu A$
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

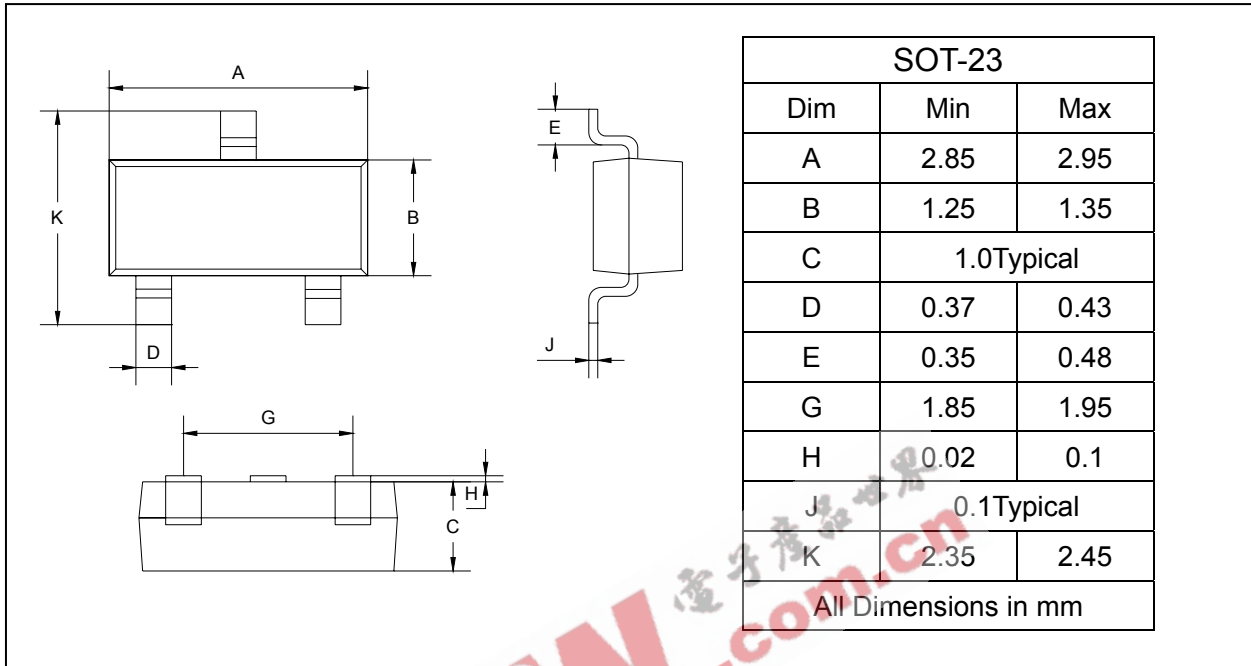
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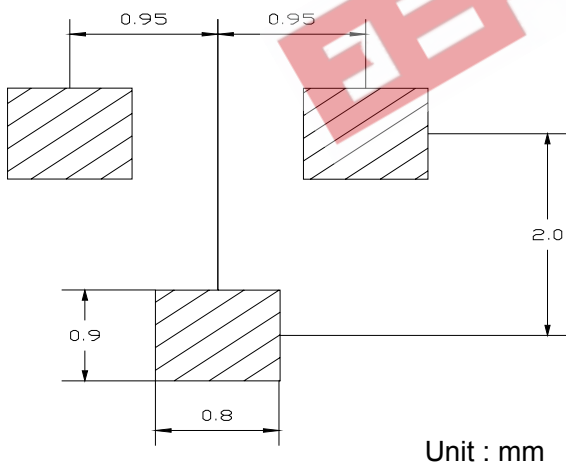
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

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