

## PNP Epitaxial Planar Silicon Transistor

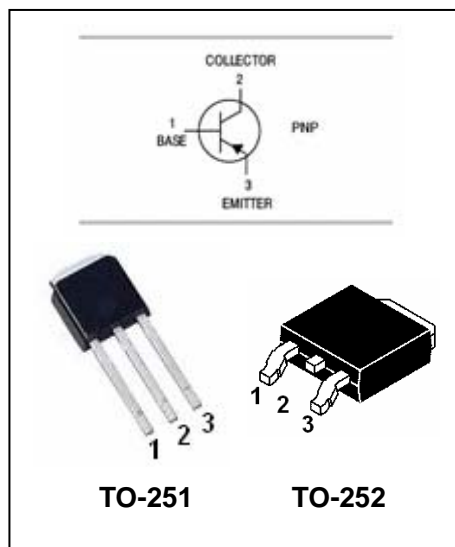
## 2SA1700

### FEATURES

- High breakdown voltage.
- Adoption of MBIT process.
- Excellent  $h_{FE}$  linearity.



Lead-free



**MAXIMUM RATING** operating temperature range applies unless otherwise specified

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-400	V
$V_{CEO}$	Collector-Emitter Voltage	-400	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-200	mA
$I_{CP}$	Collector Power Dissipation	-400	mA
$P_C$	Collector Power Dissipation	1	W
$T_j, T_{stg}$	Junction and Storage temperature range	-55 to +150	°C



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**2SA1700**

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{CBO}$	$I_C=-10\mu A, I_E=0$	-400			
Collector-emitter breakdown voltage	$V_{CEO}$	$I_C=-1mA, I_B=0$	-400			V
Emitter-base breakdown voltage	$V_{EBO}$	$I_E=-10\mu A, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-300V, I_E=0$			-100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EBO}=-4V, I_C=0$			-100	nA
DC current gain	$h_{FE}$	$V_{CE}=-10V, I_C=-50mA$	60		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-50mA, I_B=-5mA$			-0.8	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-50mA, I_B=-5mA$			-1.0	V
Transition frequency	$f_T$	$V_{CE}=-30V, I_C=-10mA$		70		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-30V, f=1MHz$		5		pF
Reverse transfer capacitance	$C_{re}$	$V_{CB}=-30V, f=1MHz$		4		pF
Turn-ON Time	$t_{on}$			0.25		$\mu s$
Turn-OFF Time	$t_{off}$			5		$\mu s$

**CLASSIFICATION OF  $h_{FE(1)}$**

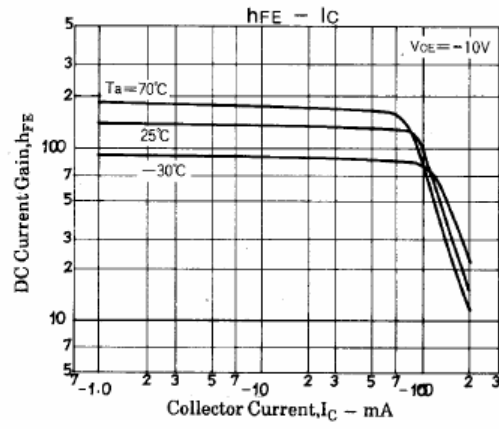
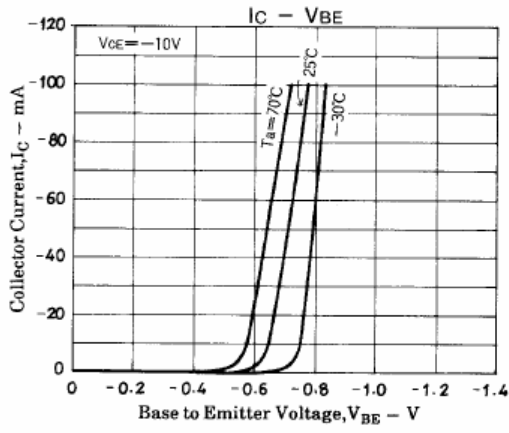
Rank	D	E
Range	60-120	100-200

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**



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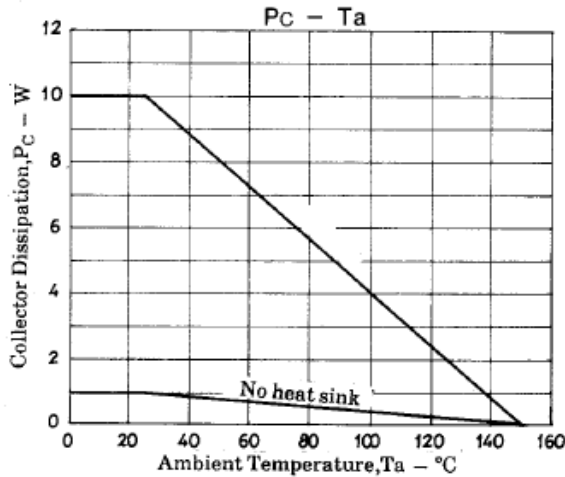
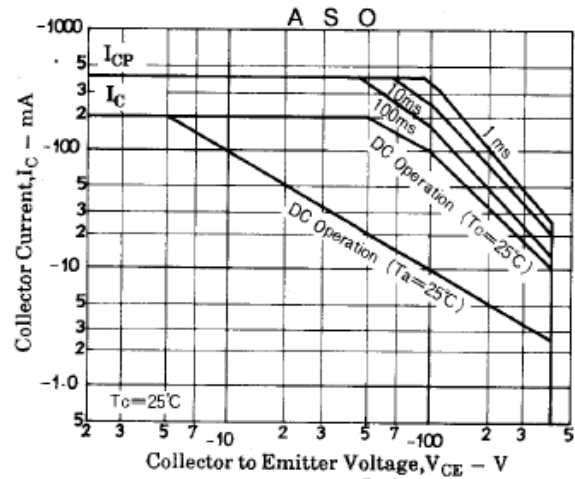
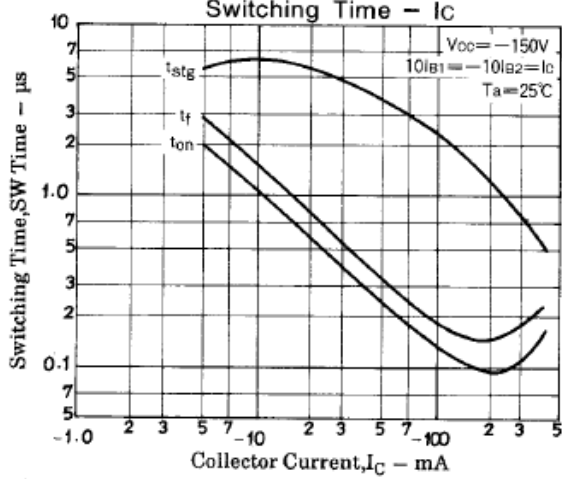
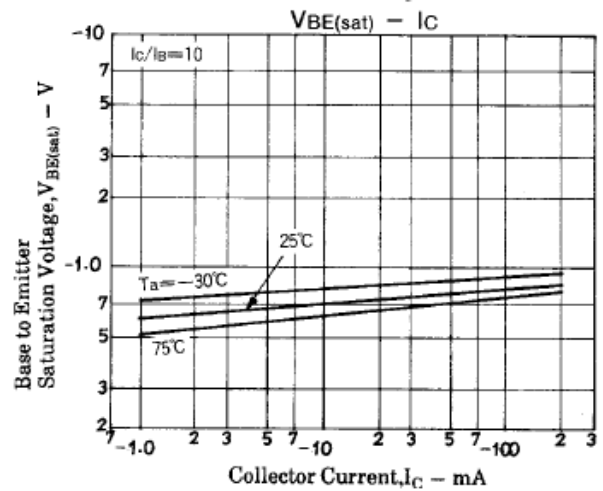
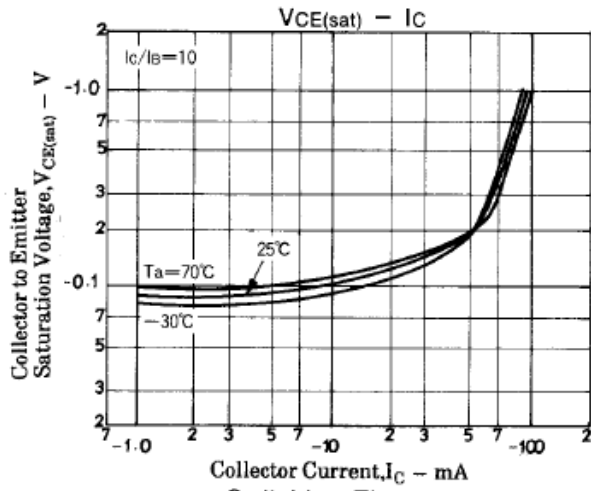
2SA1700





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# 2SA1700



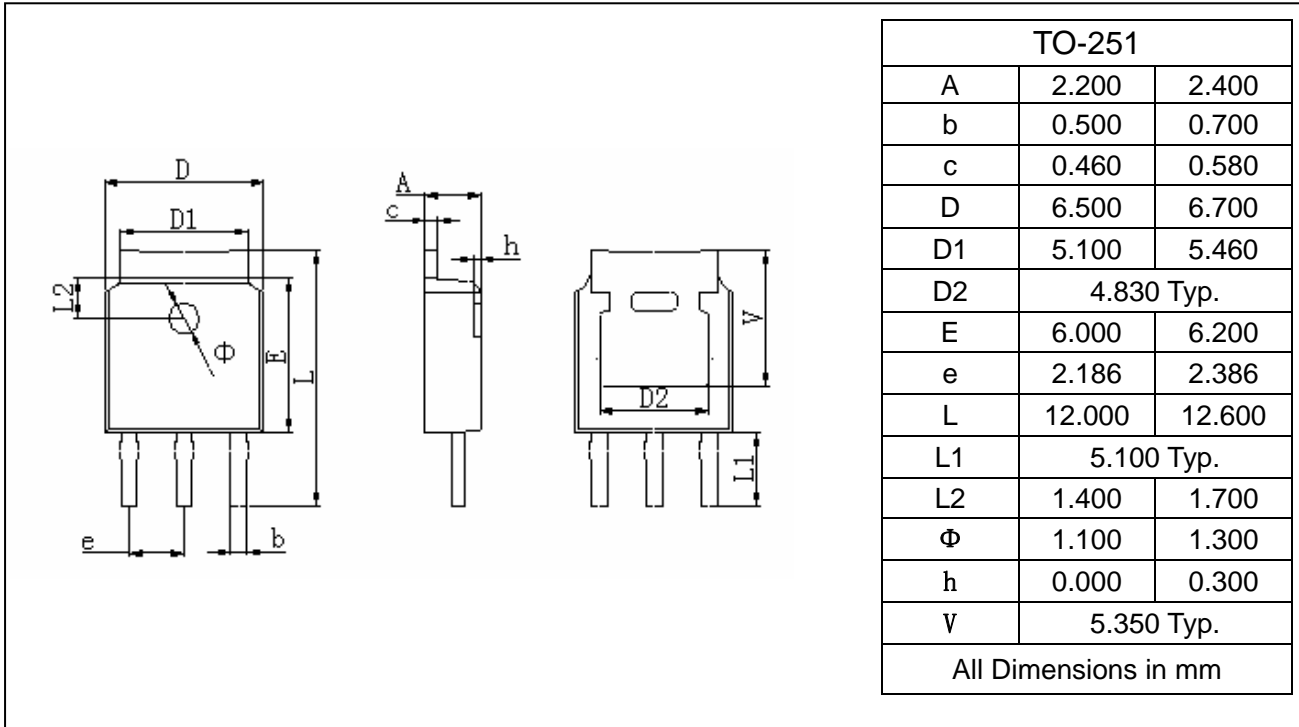
# PNP Epitaxial Planar Silicon Transistor

# 2SA1700

## PACKAGE OUTLINE

Plastic surface mounted package

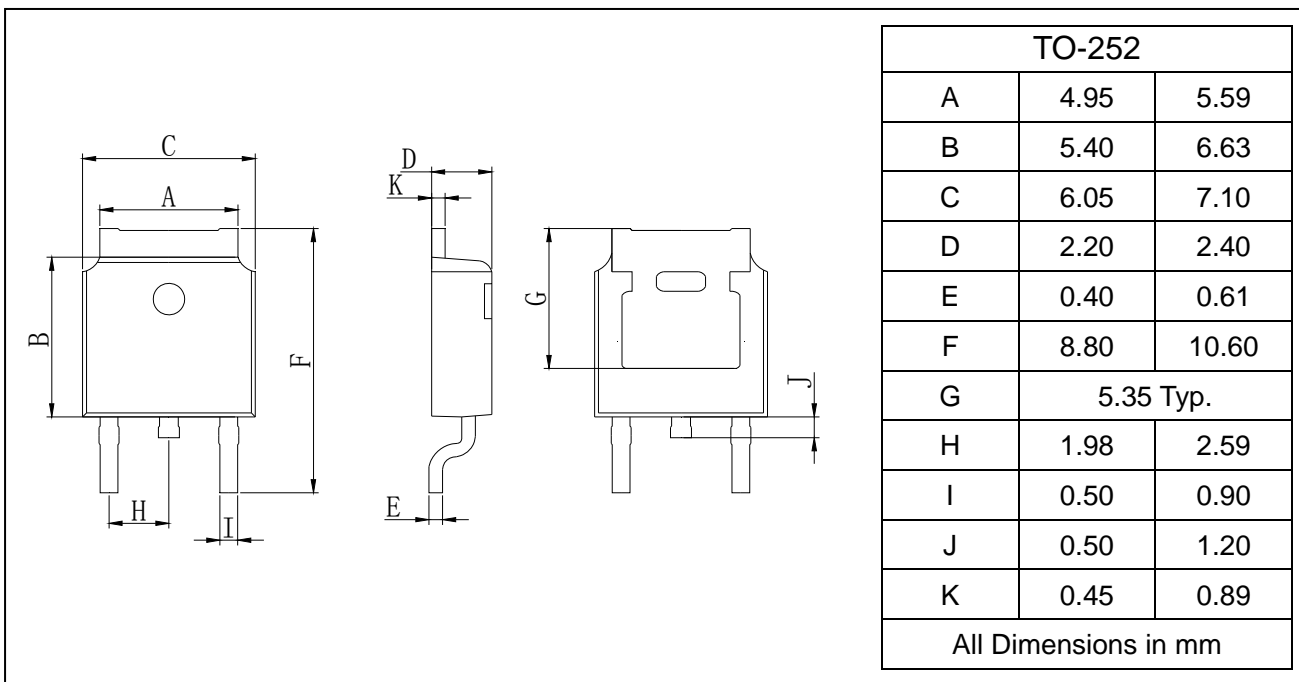
TO-251



## PACKAGE OUTLINE

Plastic surface mounted package

TO-252





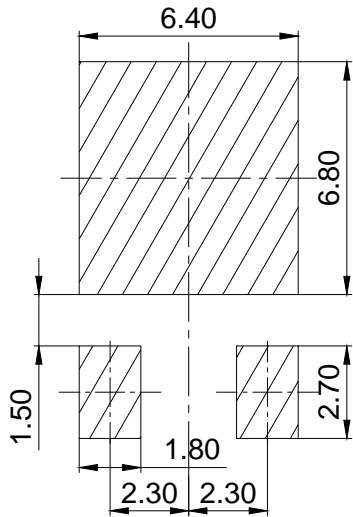
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**PNP Epitaxial Planar Silicon Transistor**

**2SA1700**

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**SOLDERING FOOTPRINT**



Unit:mm

**PACKAGE INFORMATION**

Device	Package	Shipping
2SA1700	TO-251/252	80PCS/Tube
	TO-252	2500PCS/Tape&Reel