

PNP Epitaxial Planar Silicon Transistor

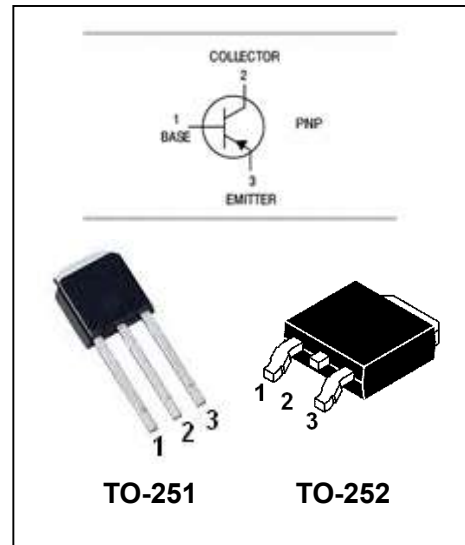
2SA1700

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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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		μs
Turn-OFF Time	t_{off}			5		μs

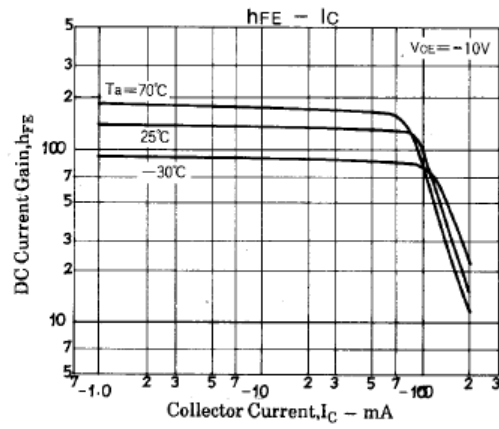
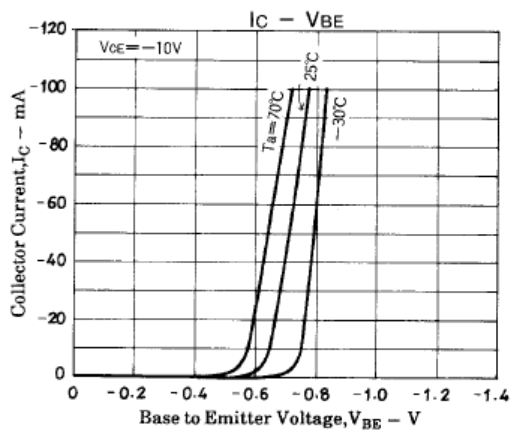
CLASSIFICATION OF $h_{FE(1)}$

Rank	D	E
Range	60-120	100-200

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

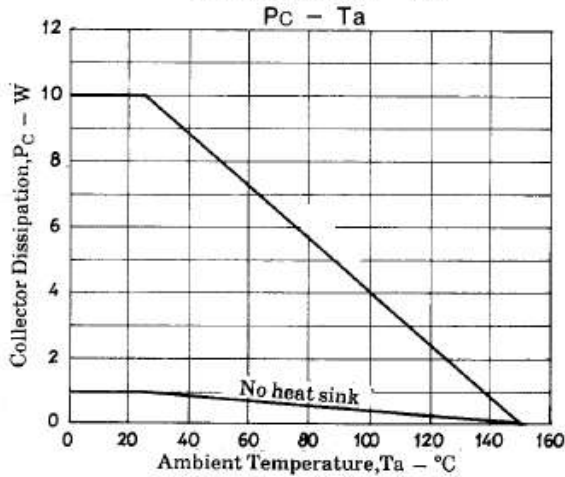
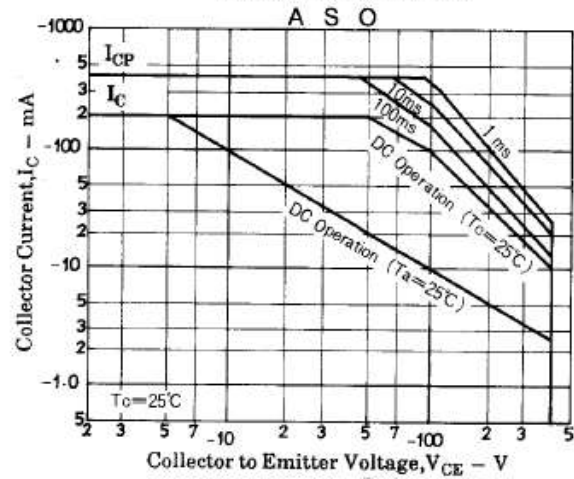
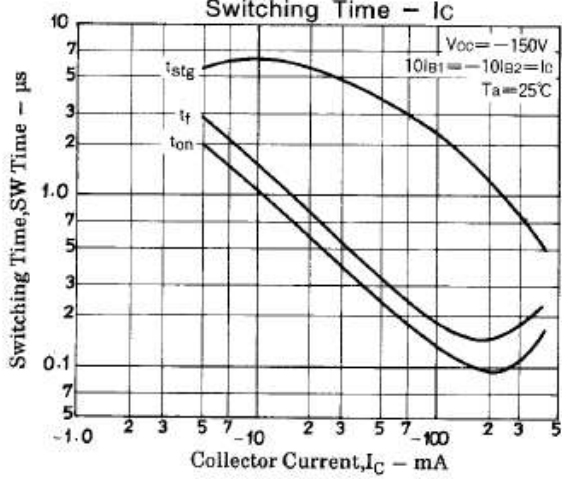
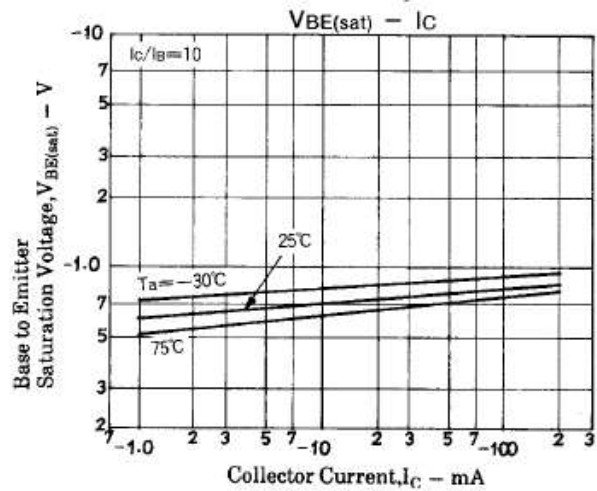
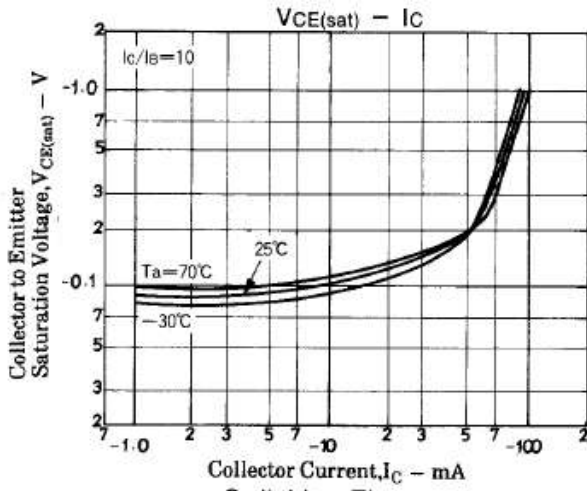
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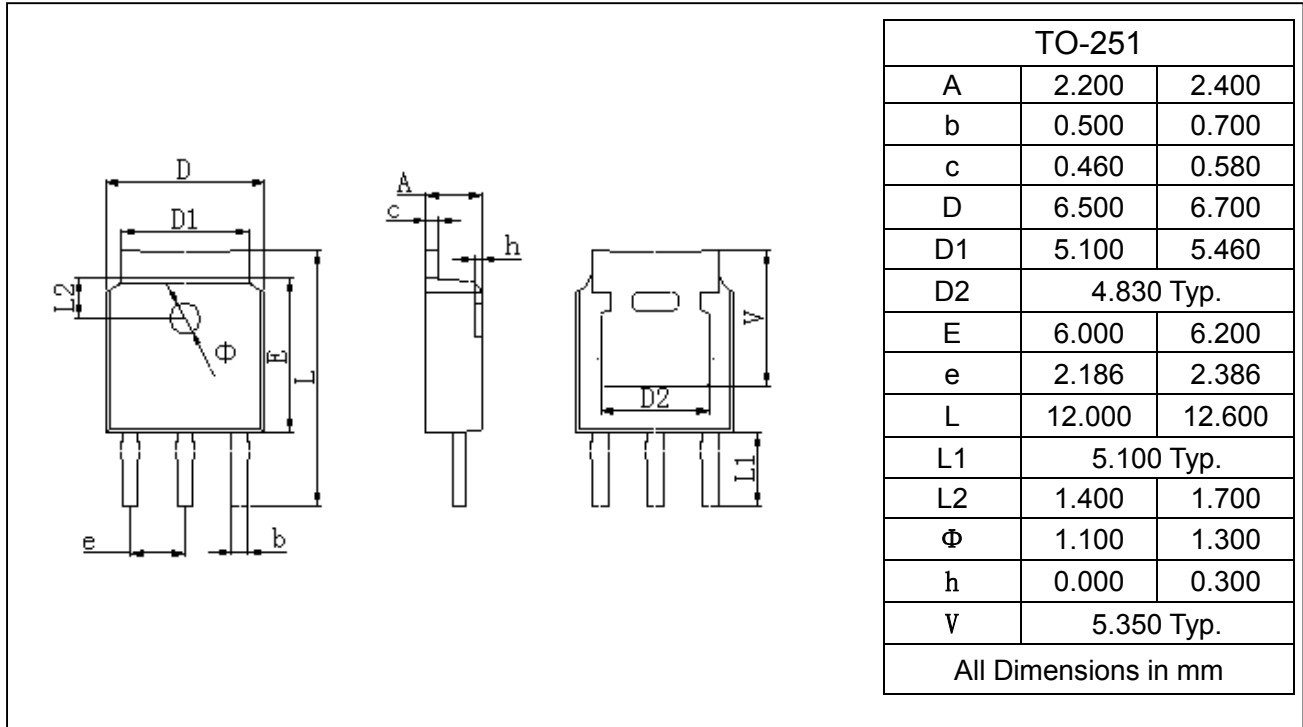
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PACKAGE OUTLINE

Plastic surface mounted package

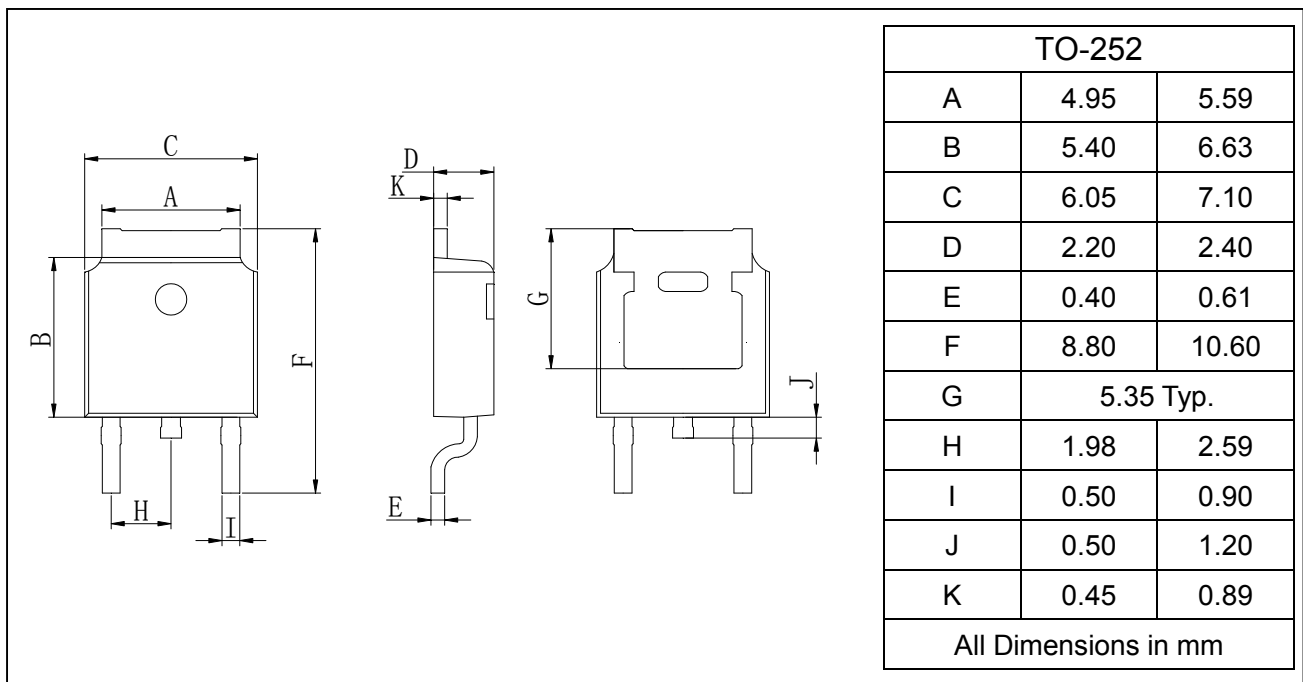
TO-251



PACKAGE OUTLINE

Plastic surface mounted package

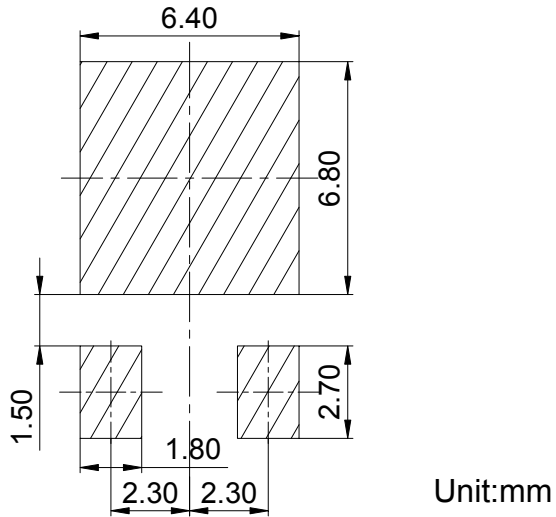
TO-252



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SOLDERING FOOTPRINT



PACKAGE INFORMATION

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