



PRODUCT DATA SHEET



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Datasheet



Resources

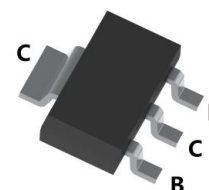


Samples

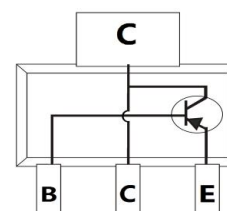
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

FEATURES

- High Voltage Driver Application
- Surface Mount device



SOT-223



MECHANICAL DATA

- Case: SOT-223
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.04 grams (approximate)

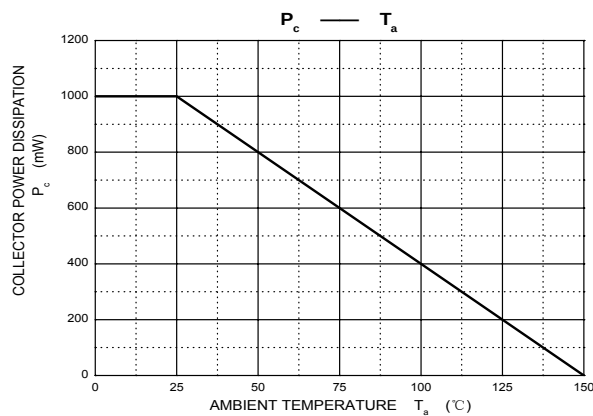
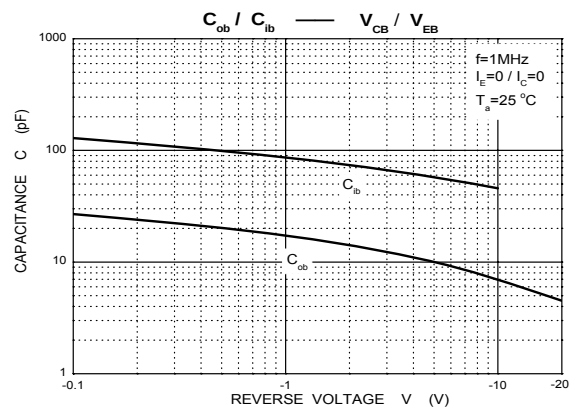
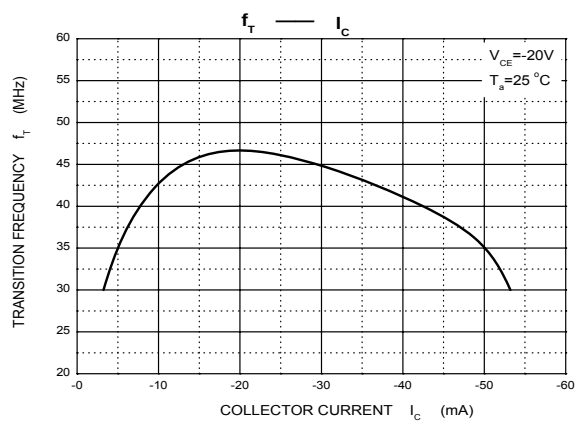
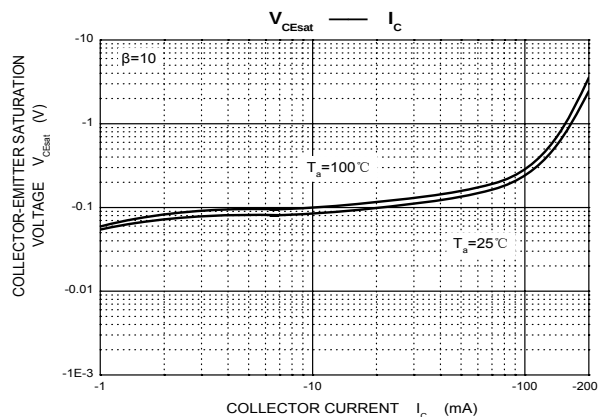
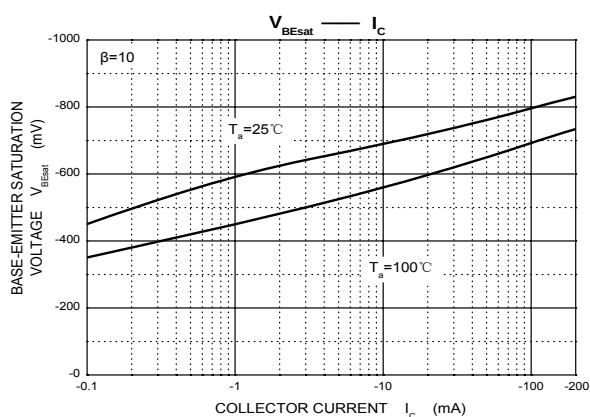
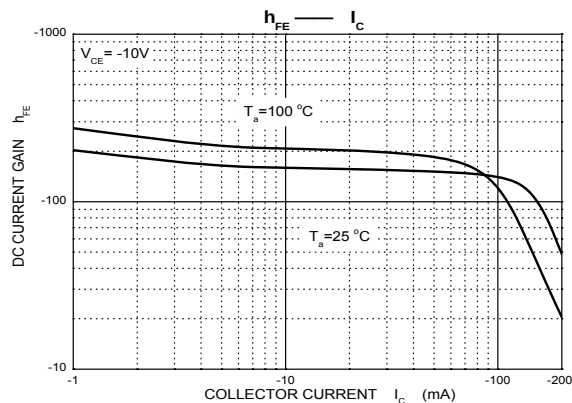
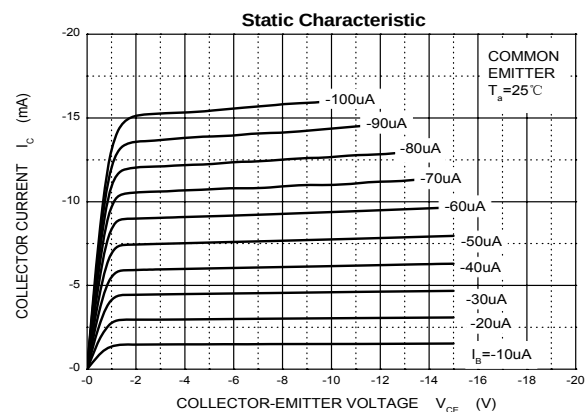
MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

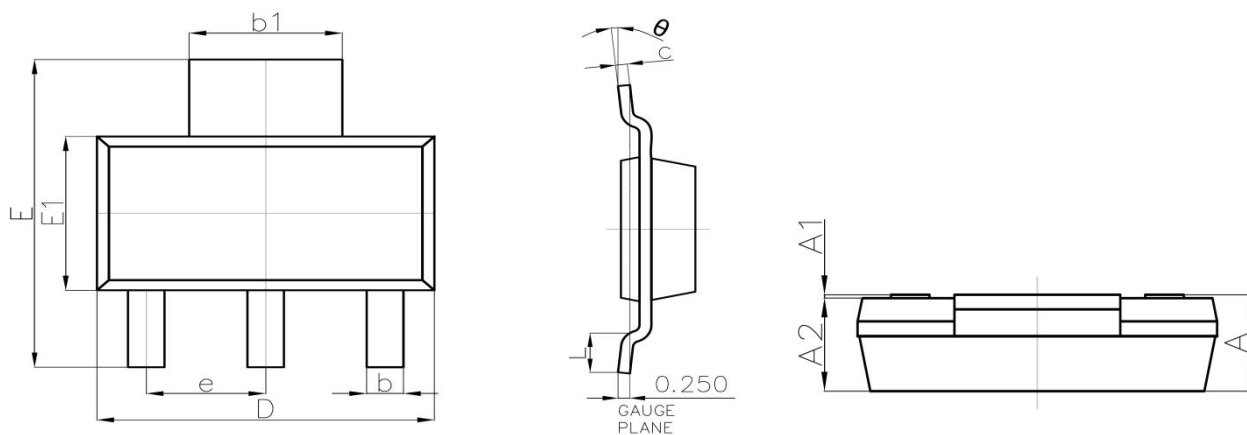
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	-500	V
Collector-Emitter Voltage	V _{CEO}	-500	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current-Continuous	I _C	-200	mA
Collector Current-Pulsed	I _{CM}	-300	mA
Collector Power Dissipation	P _C	1	W
Thermal Resistance From Junction To Ambient	R _{θJA}	125	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

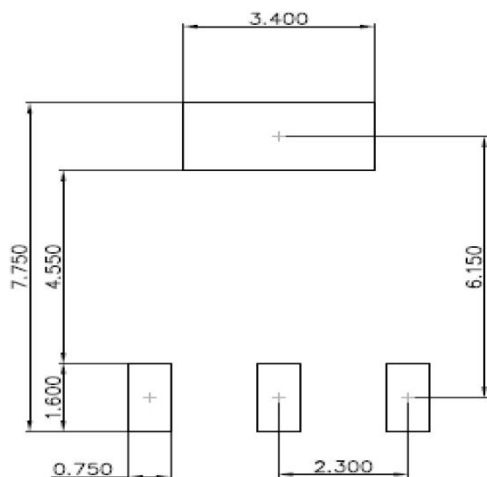
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Collector-base breakdown voltage	V _{(BR)CBO}	-500			V	I _C = -100uA, I _E = 0
Collector-emitter breakdown voltage	V _{(BR)CEO}	-500			V	I _C = -1mA, I _B = 0
Emitter-base breakdown voltage	V _{(BR)EBO}	-5			V	I _E = -100uA, I _C = 0
Collector cut-off current	I _{CBO}			-0.1	uA	V _{CB} = -500V, I _E = 0
Collector cut-off current	I _{CEO}			-5	uA	V _{CE} = -400V, I _E = 0
Emitter cut-off current	I _{EBO}			-0.1	uA	V _{EB} = -4V, I _C = 0
DC current gain	h _{FE}	80		300		V _{CE} = -10V, I _C = -10mA
		70				V _{CE} = -10V, I _C = -1mA
		60				V _{CE} = -10V, I _C = -100mA
		80				V _{CE} = -10V, I _C = -50mA
Collector-emitter saturation voltage	V _{CE(sat)}			-0.2	V	I _C = -10mA, I _B = -1mA
				-0.3	V	I _C = -50mA, I _B = -5mA
Base-emitter saturation voltage	V _{BE(sat)}			-0.75	V	I _C = -10mA, I _B = -1mA
Transition frequency	f _T	50			MHz	V _{CE} = -20V, I _C = -10mA, f = 30MHz

Typical Characteristics



SOT-223 Package Outline Dimensions


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	—	1.800	-----	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	-----	0.030	-----
θ	0°	10°	0°	10°

SOT-223 Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

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