



PRODUCT DATA SHEET



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Datasheet



Resources

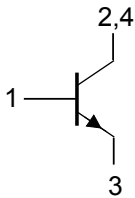


Samples

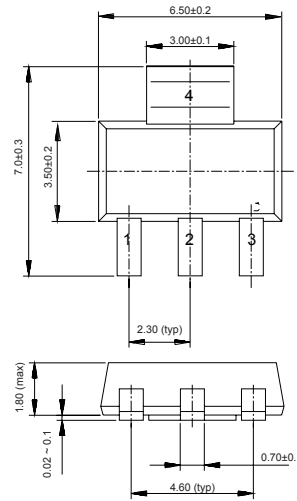
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

■ Features

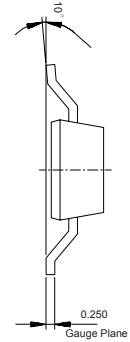
- High current (max. 1 A)
- Low voltage (max. 20 V)



SOT-223



Unit:mm



- 1.Base
- 2.Collector
- 3.Emitter
- 4.Collector

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	32	V
Collector - Emitter Voltage	V _{CE0}	20	
Emitter - Base Voltage	V _{EB0}	5	
Collector Current - Continuous	I _C	1	A
Collector Current - Pulse	I _{CP}	2	
Base Current - Pulse	I _{BP}	0.2	
Collector Power Dissipation	P _C	1.37	W
Thermal Resistance from Junction to Ambient	R _{θJA}	91	°C/W
Thermal Resistance from Junction to Soldering Point	R _{θJS}	10	
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-65 to 150	

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CBO}	I _C = 100 μA, I _E =0	32			V
Collector- emitter breakdown voltage	V _{CEO}	I _C = 1 mA, I _B =0	20			
Emitter - base breakdown voltage	V _{EBO}	I _E = 100 μA, I _C =0	5			
Collector-base cut-off current	I _{CBO}	V _{CB} = 25 V, I _E =0			100	nA
		V _{CB} = 25 V, I _E =0, T _J =150°C			10	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0			100	nA
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =1 A, I _B =100mA			0.5	V
Base - emitter saturation voltage	V _{BE(sat)}	I _C =1 A, I _B =100mA			1.2	
Base - emitter voltage	V _{BE}	V _{CE} = 10V, I _C = 5mA		0.62		
		V _{CE} = 1V, I _C = 1 A			1	
DC current gain	h _{FE}	V _{CE} = 10V, I _C = 5mA	50			
		V _{CE} = 1V, I _C = 500mA	85		375	
		V _{CE} = 1V, I _C = 1 A	60			
Collector capacitance	C _{ob}	V _{CB} = 5V, I _E = I _C =0, f=1MHz		38		pF
Transition frequency	f _t	V _{CE} = 5V, I _C = 10mA, f=100MHz	40			MHz

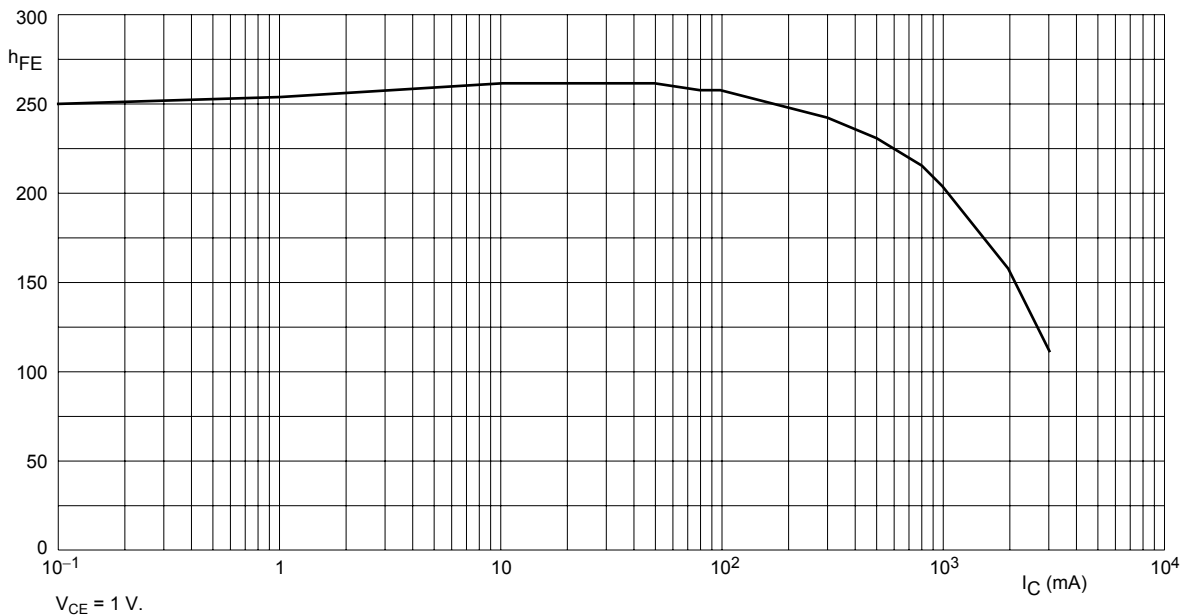
■ Typical Characteristics


Fig.1 DC current gain; typical values.

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