

/ Descriptions

Silicon NPN transistor in a SOT-323 Plastic Package.

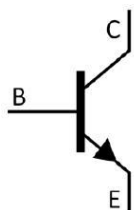
• / Features

High voltage, Low saturation voltage, low collector capacitance output, complementary pair with MMBTA92W.

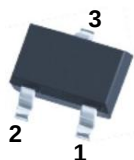
v / Applications

High voltage control circuit.

≡ / Equivalent Circuit



λ / Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

↻ / Marking

Marking	H1D
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绝对最大额定值(A_T=25℃)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CBO}	300	V
Collector to Emitter Voltage	V _{CEO}	300	V
Emitter to Base Voltage	V _{EBO}	6.0	V
Collector Current - Continuous	I _C	500	mA
Collector Power Dissipation	P _C *	250	mW
Junction Temperature	T _j	150	
Storage Temperature Range	T _{stg}	-55 150	

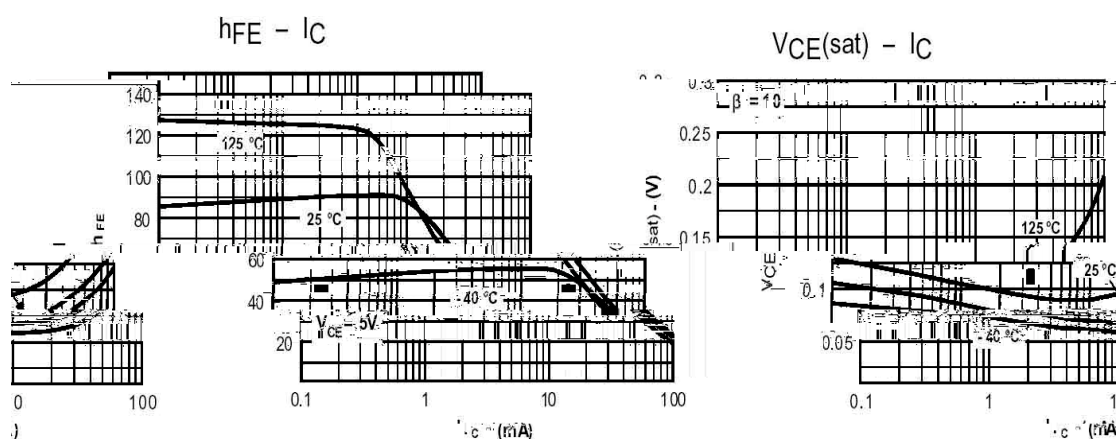
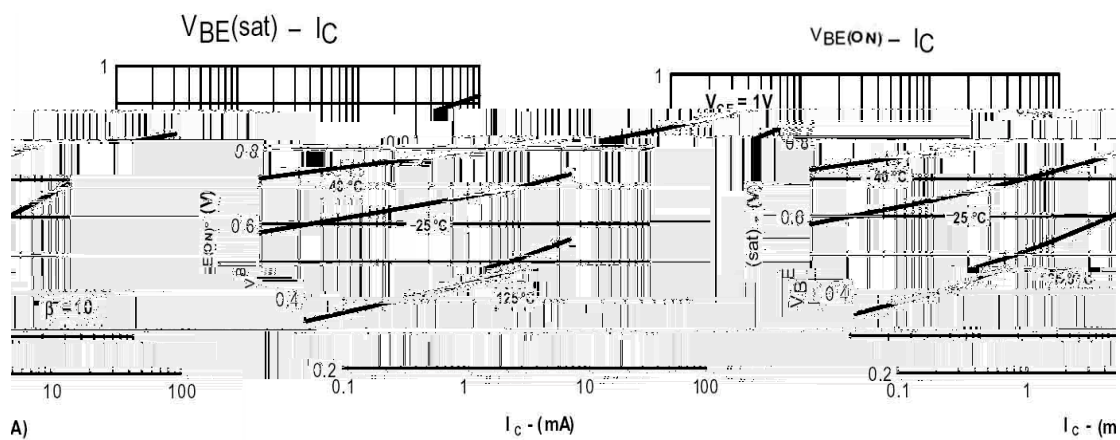
*:Device mounted on FR-4 PCB 4.0*4.0*0.15mm³

电 气 特 性 (A_T=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V _{CBO}	I _C =100μA I _E =0	300			V
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =1.0mA I _B =0	300			V
Emitter to Base Breakdown Voltage	V _{EBO}	I _E =100μA I _C =0	6.0			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =200V I _E =0			0.1	μA
Emitter Base Cut-Off Current	I _{EBO}	V _{BE} =6.0V I _C =0			0.1	μA
DC Current Gain	h _{FE(1)}	V _{CE} =10V I _C =10mA	40			
	h _{FE(2)}	V _{CE} =10V I _C =30mA	40			
	h _{FE(3)}	V _{CE} =10V I _C =1.0mA	25			
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =20mA I _B =2.0mA			0.5	V
Base to Emitter Saturation Voltage	V _{BE(sat)}	I _C =20mA I _B =2.0mA			0.9	V
Transition Frequency	f _T	I _C =10mA V _{CE} =20V f=100MHz	50			MHz
Collector output capacitance	C _{ob}	V _{CB} =20V I _E =0 f=1.0MHz			3.0	pF

*pulse test: pulse width≤300μS,duty cycle≤2.0%.

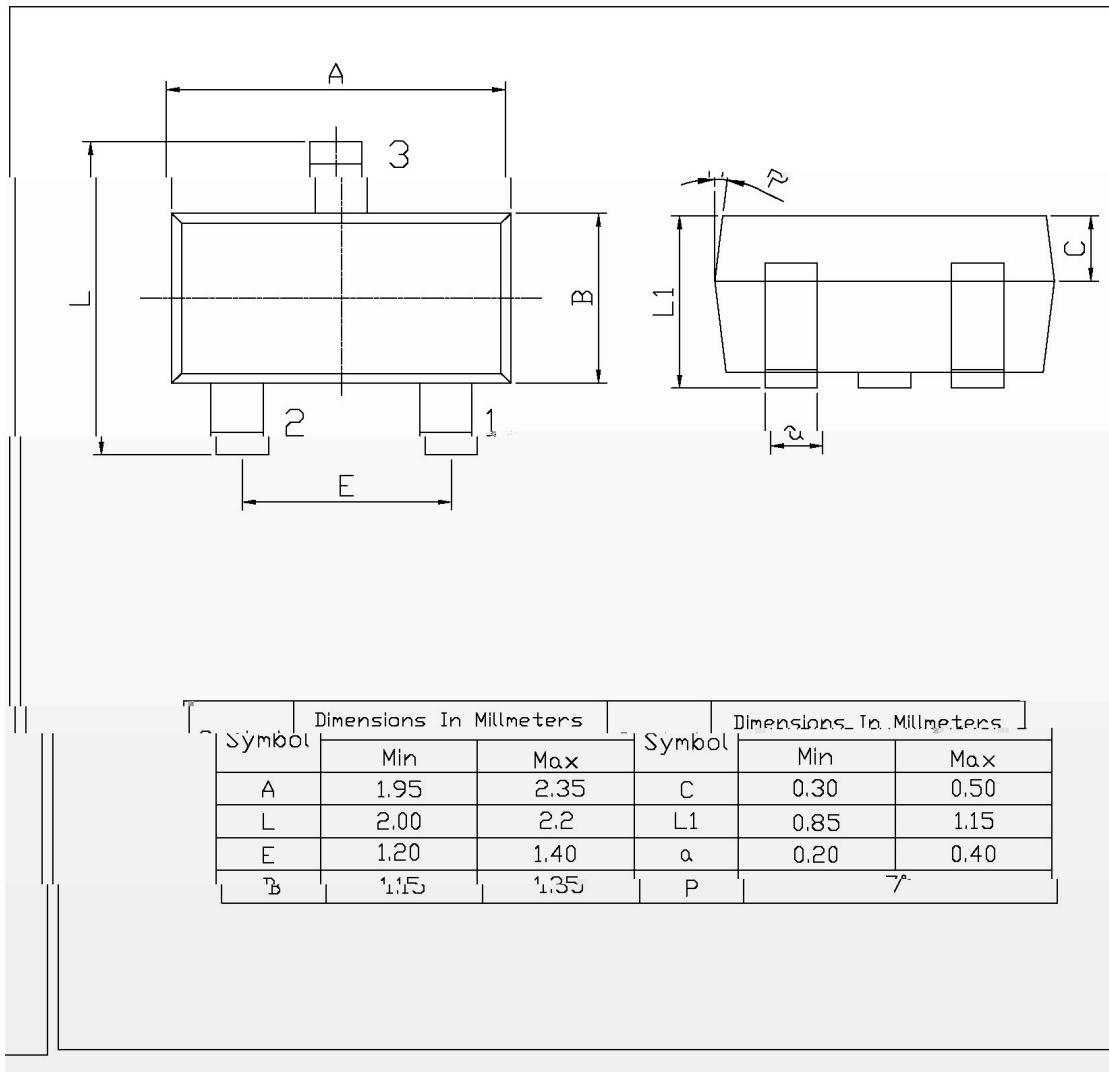
Electrical Characteristic Curve



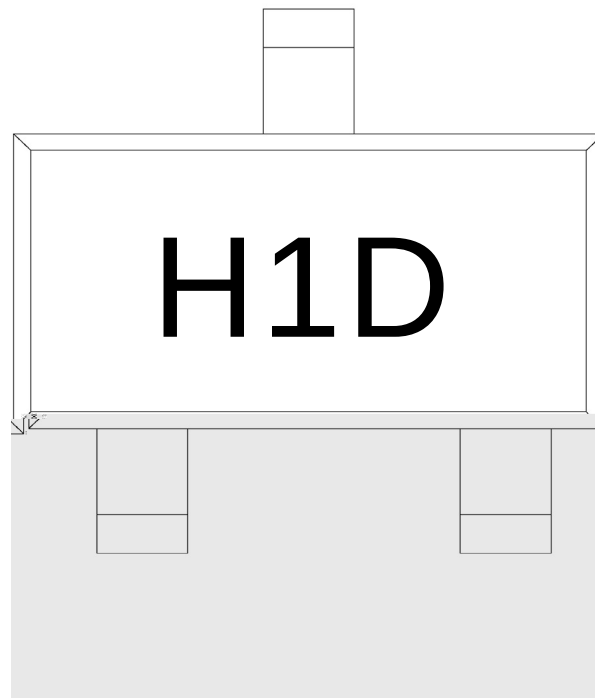
/ Package Dimensions

SOT-323

单位: mm



/ Marking Instructions



H

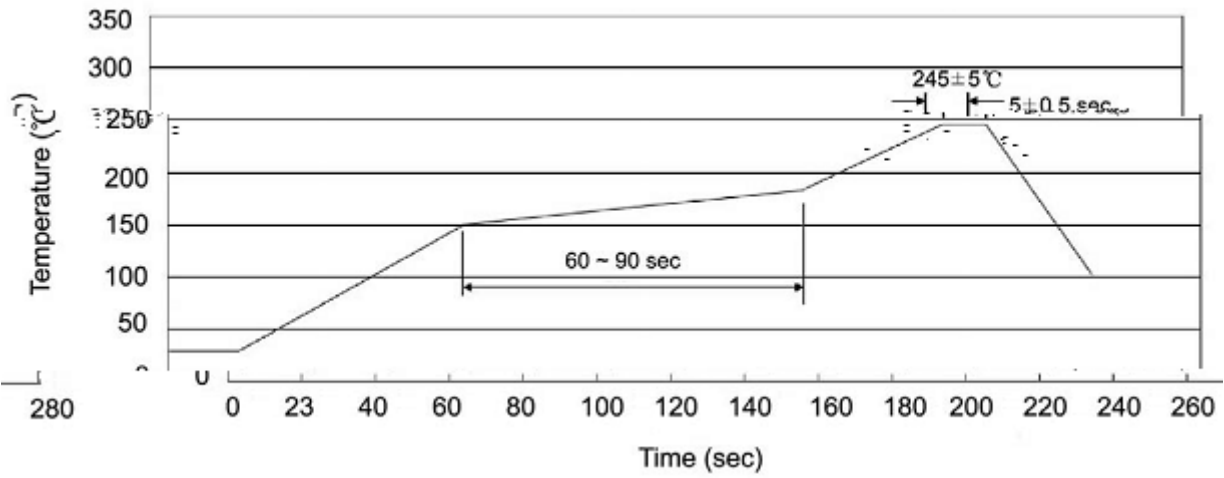
1D

Note:

H: Company Code.

1D: Product Type.

Wp shrdwxrh Prrioh irr IU Uhiorw Vroghriqj+Pe-Frhh,



Note:

- 1251506090sec;1.Preheating:25~150, Time:60~90sec.
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