

/ Descriptions

SOT-323 NPN Silicon NPN transistor in a SOT-323 Plastic Package.

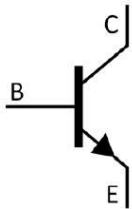
/ Features

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

/ Applications

High voltage control circuit.

/ Equivalent Circuit



/ Pinning



PIN1 Emitter PIN 2 Base PIN 3 Collector

/ Marking

Marking	H1D
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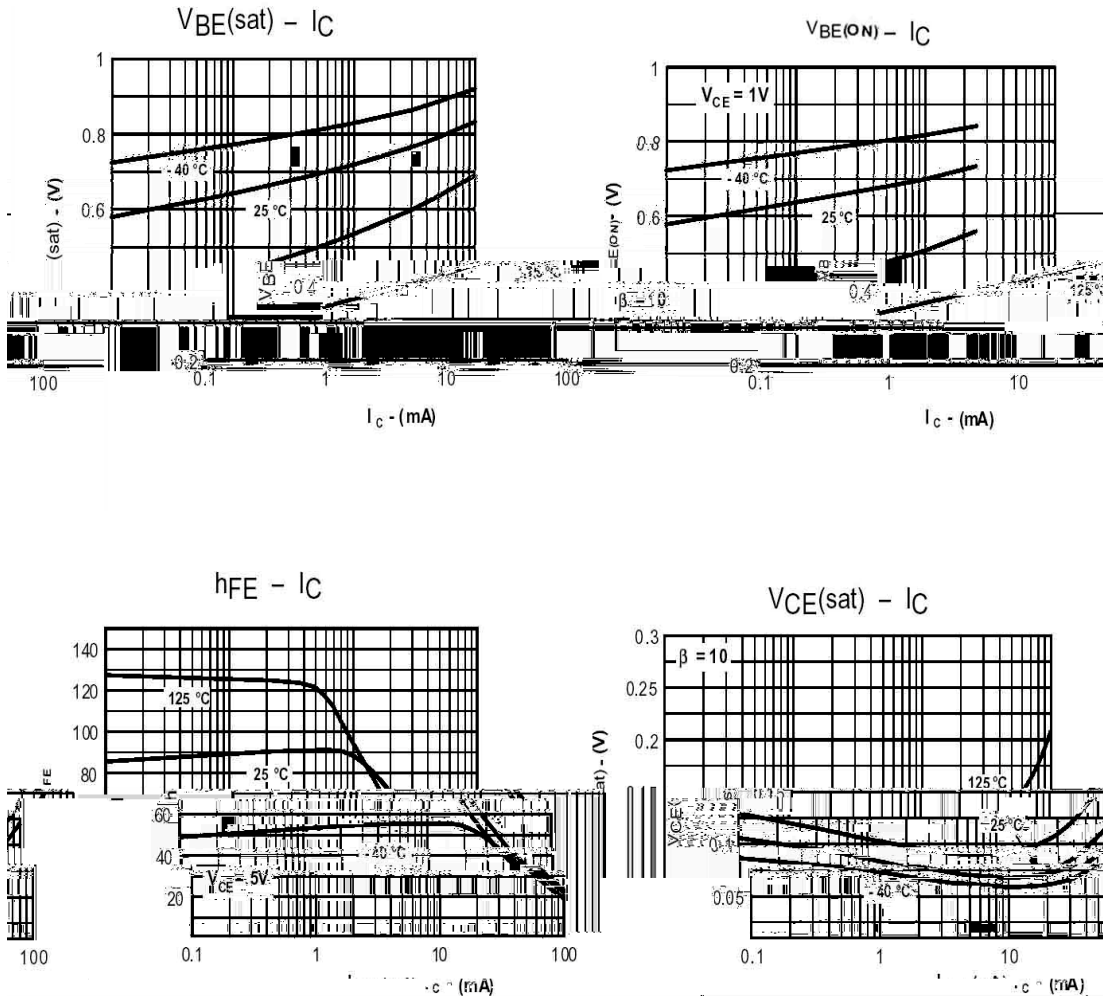
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	300	V
Collector to Emitter Voltage	V_{CEO}	300	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	500	mA
Collector Power Dissipation	P_C^*	250	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

*: 4.0*4.0*0.15mm³ FR-4 PCB

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=100\mu A$ $I_E=0$	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}	$I_E=100\mu A$ $I_C=0$	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	$I_C=10mA$				

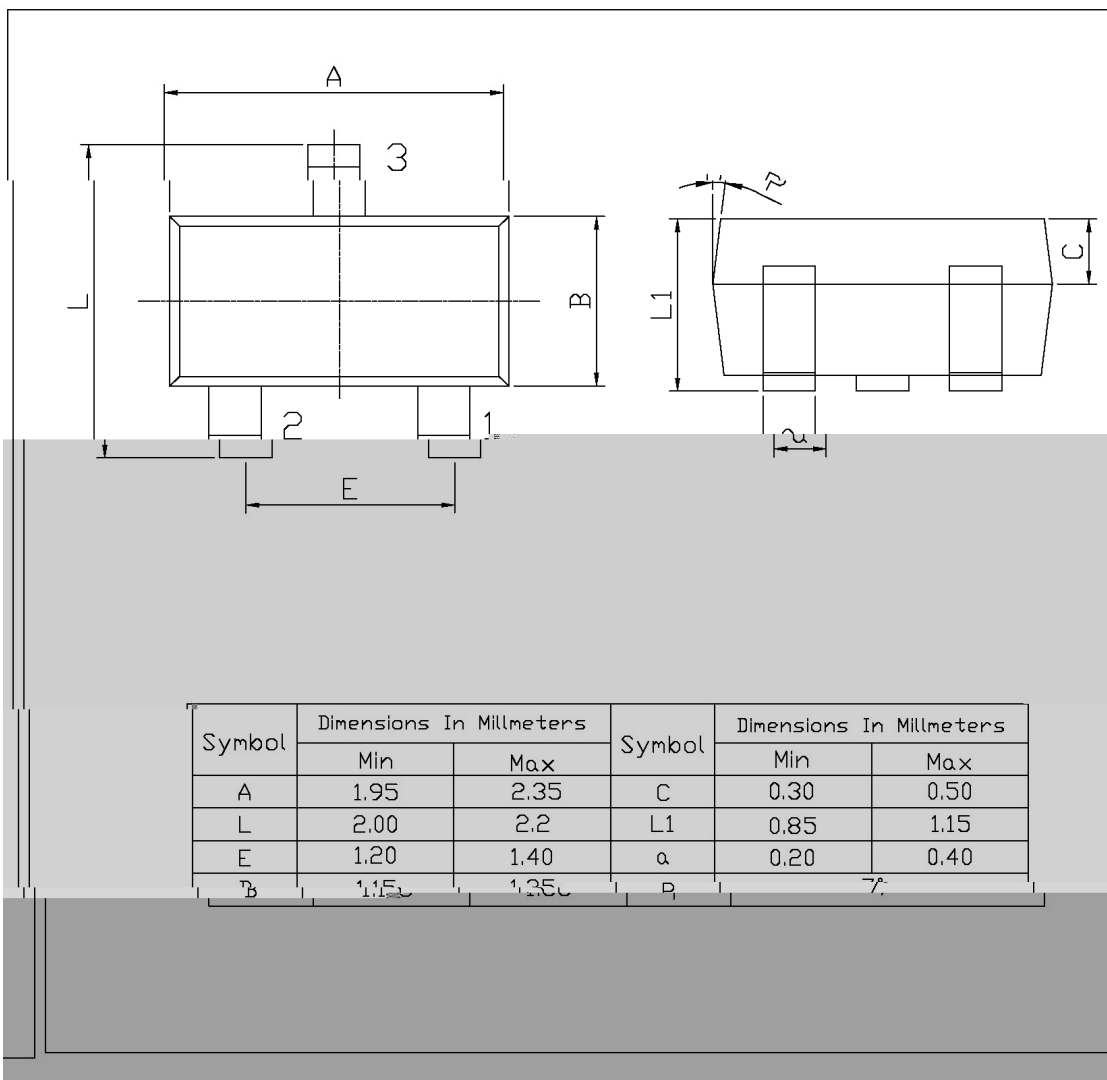
/ Electrical Characteristic Curve



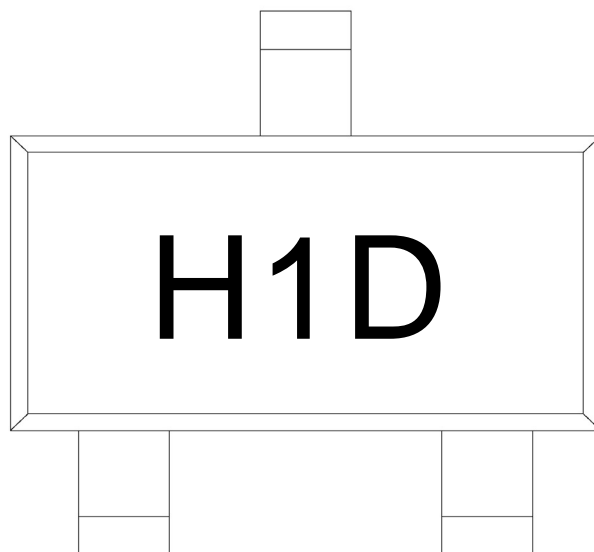
/ Package Dimensions

SOT-323

单位: mm



/ Marking Instructions



H

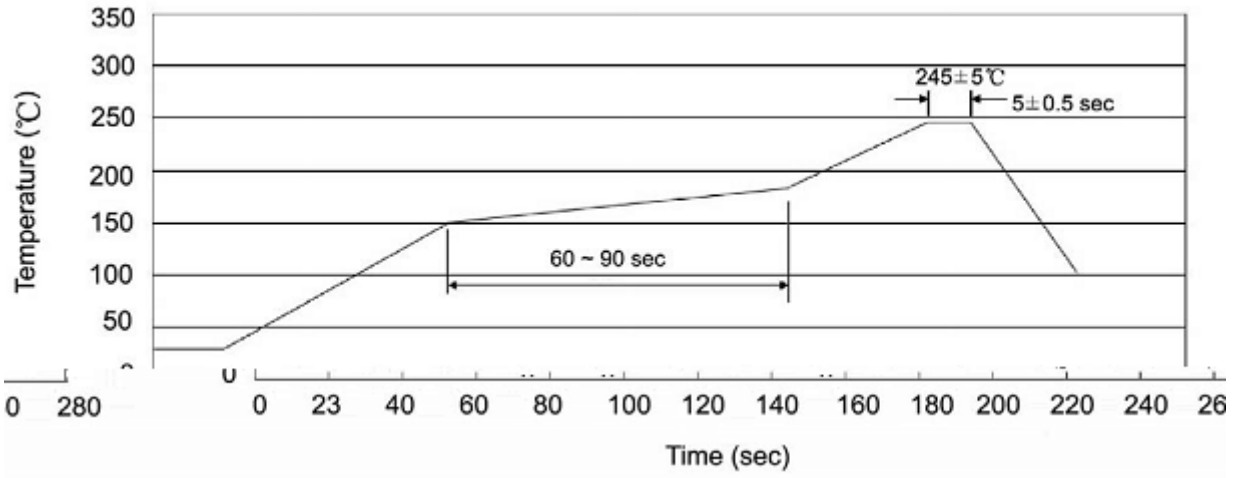
1D

Note:

H: Company Code.

1D: Product Type.

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Note:

- 1 25 150 60 90sec;
- 2

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