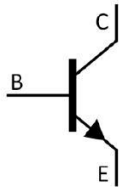


SOT-323	NPN	Silicon NPN transistor in a SOT-323 Plastic Package.
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High h_{FE} , Low $V_{CE(sat)}$, complements the 2SB1218A.

General amplifier applications.

/ Equivalent Circuit



PIN1	Emitter	PIN 2	Base	PIN 3	Collector
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/ Marking

h _{FE} Classifications Symbol	Q	R	S
h _{FE} Range	160 260	210 340	290 460
Marking	HZQ	HZR	HZS

46.7

2.0005

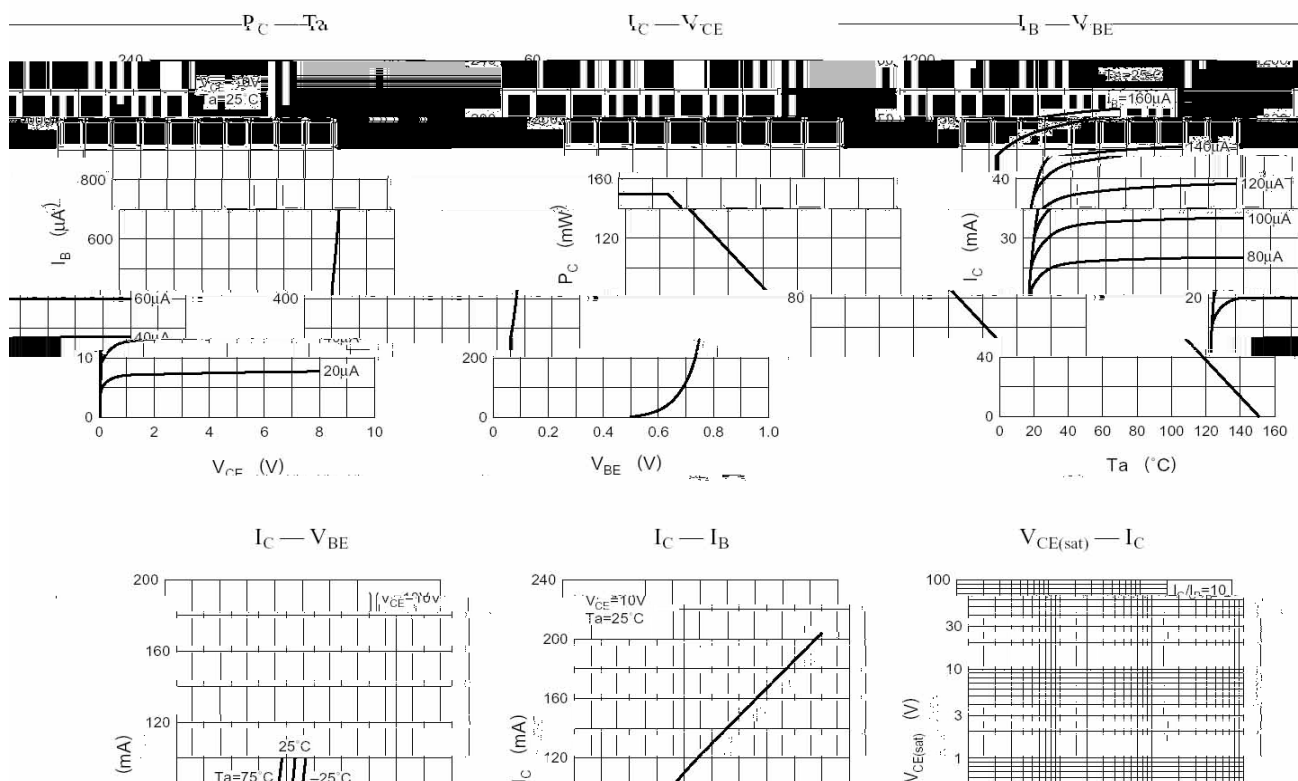
/ Absolute Maximum Ratings(Ta=25 –)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous	I_C	100	mA
Collector Current – Continuous(Pulse)	I_{CP}	200	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25 –)

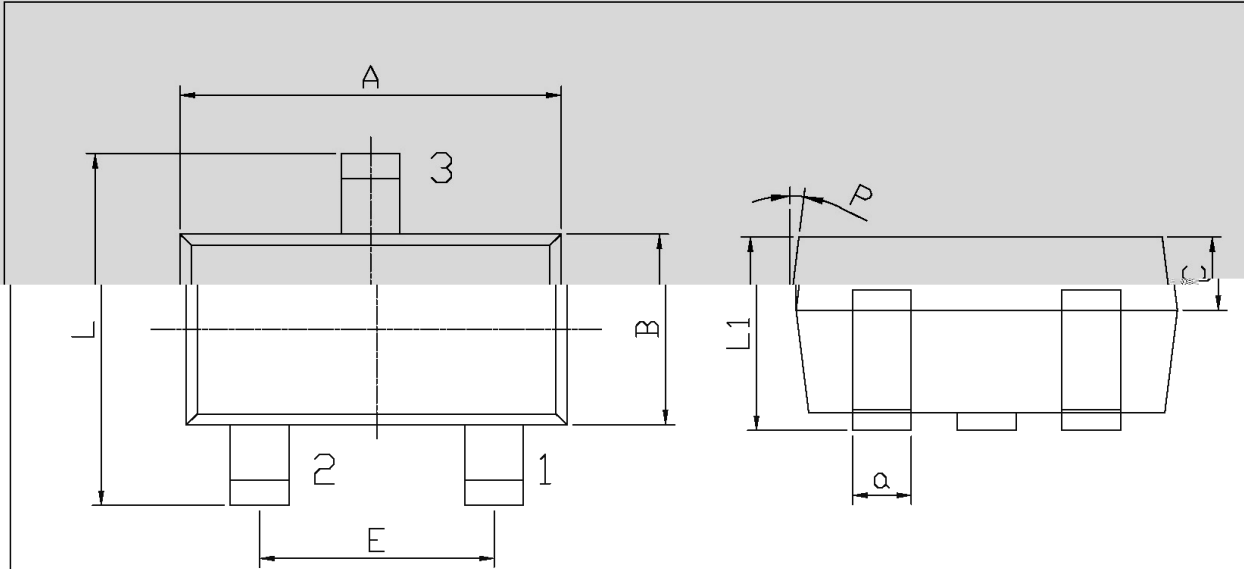
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\mu A$ $I_E=0$	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=2.0mA$ $I_B=0$	50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=10\mu A$ $I_C=0$	7.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=20V$ $I_E=0$			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{CE}=10V$ $I_B=0$			100	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=10V$ $I_C=2.0mA$	160		460	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=100mA$	90			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=10mA$		0.1	0.3	V
Transition Frequency	f_T	$V_{CB}=10V$ $I_C=2.0mA$ $f=200MHz$		150		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		3.5		pF

/ Electrical Characteristic Curve



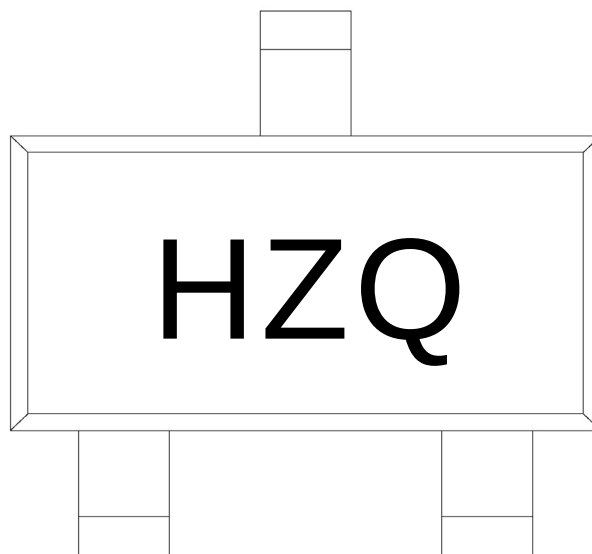
/ Package Dimensions

SOT-323 单位: mm



Dimensions In Millimeters			Dimensions In Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	1.95	2.35	C	0.30	0.50
L	2.00	2.2	L1	0.85	1.15
E	1.20	1.40	a	0.20	0.40
R ₁	1.15	1.35	θ	7°	

/ Marking Instructions



H

Z

Q h_{FE}

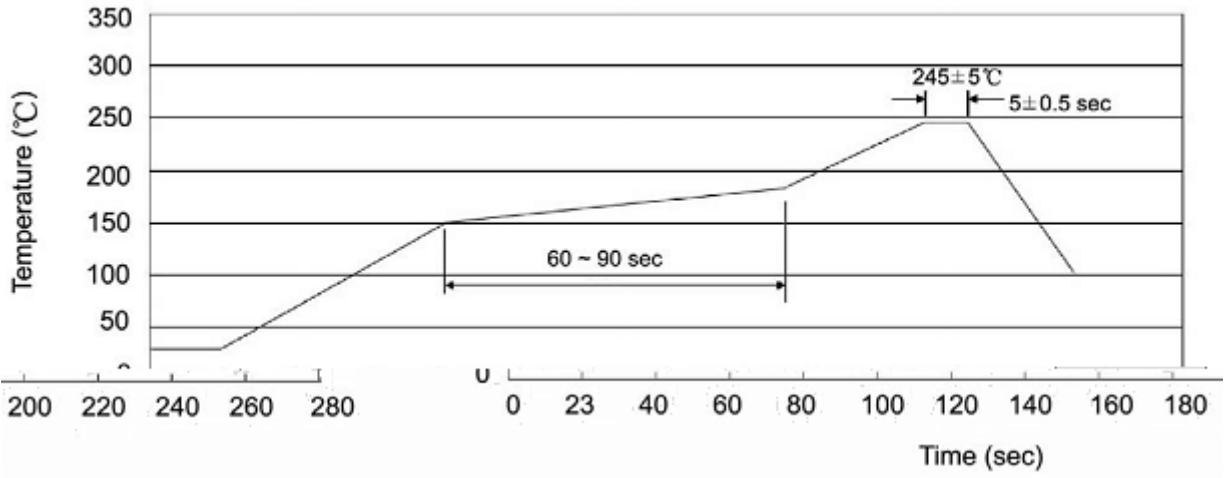
Note:

H: Company Code.

Z: Product Type.

Q: h_{FE} Classifications Symbol

() / Whp shudwxuh Suriloh i ru LU Uhior z Vroghulqj+Se0l uhh,



Note:

- 1

25 150

60 90sec;

1.Preheating:25~150 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices