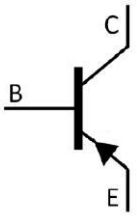
SOT-23 PNP Silicon PNP transistor in a SOT-23 Plastic Package.

, , h_{FE} , , 2SC1815M

High voltage and high current, excellent h_{FE} linearity, low noise, complementary pair with 2SC1815M.

,

Audio frequency general purpose amplifier applications, driver stage amplifier applications.

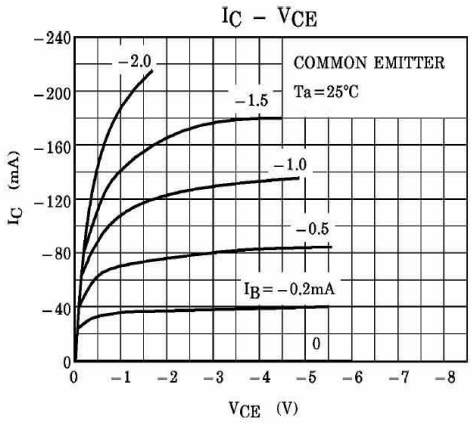


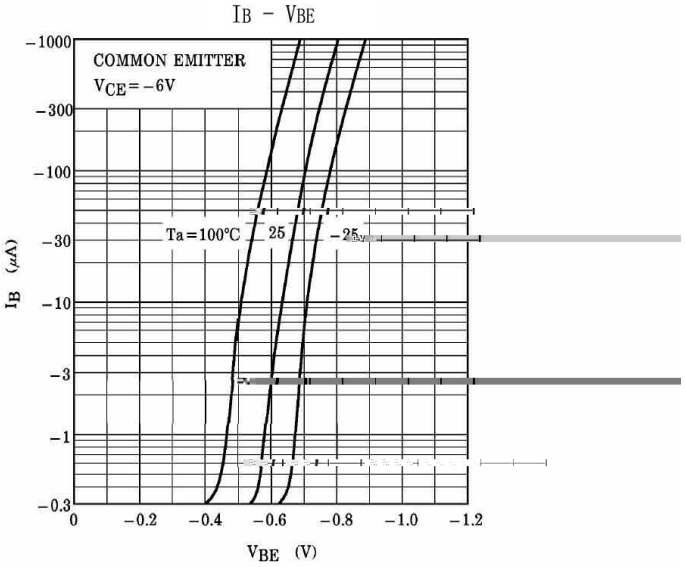
PIN1 Base PIN 2 Emitter PIN 3 Collector

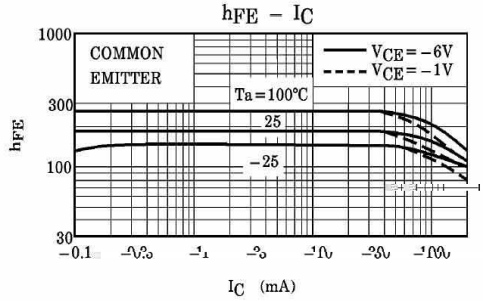
h_{FE} Classifications Symbol	O	Y	GR
h_{FE} Range	70～140	120～240	200～400
Marking	HBAO	HBAY	HBAG

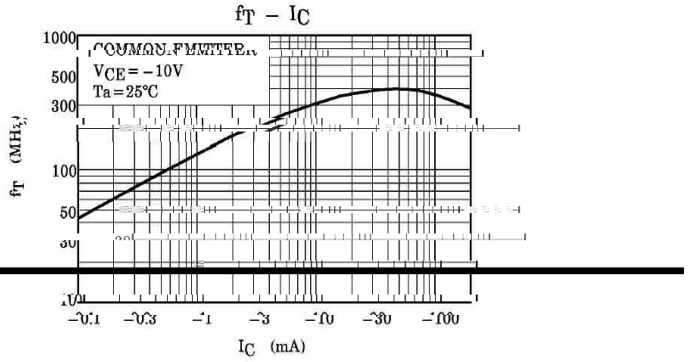
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-50	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-150	mA
Base Current	I_B	-50	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55～150	

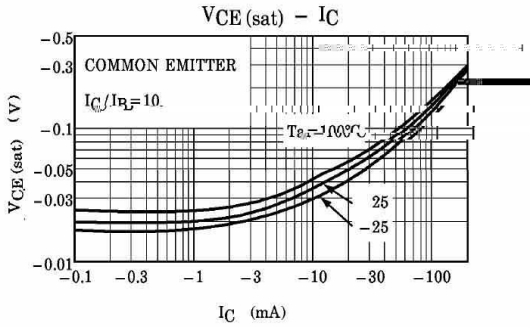
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-50 V I_E=0			-0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=-5.0V I_C=0			-0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-6.0V I_C=-2.0mA	70		400	
	$h_{FE(2)}$	V_{CE}=-6.0V I_C=-150mA	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-100mA I_B=-10mA		-0.1	-0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-100mA I_C=-10mA			-1.1	V
Transition Frequency	f_T	I_C=-1.0mA V_{CE}=-10V	80			MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=1.0MHz		4.0	7.0	pF
Base Intrinsic Resistance	rbb’	V_{CB}=-10V I_E=1.0mA f=30MHz		30		Ω
Noise Figure	NF	V_{CE}=-6.0V I_C=-0.1mA R_G=10kΩ f=1.0KHz		1.0	10	dB

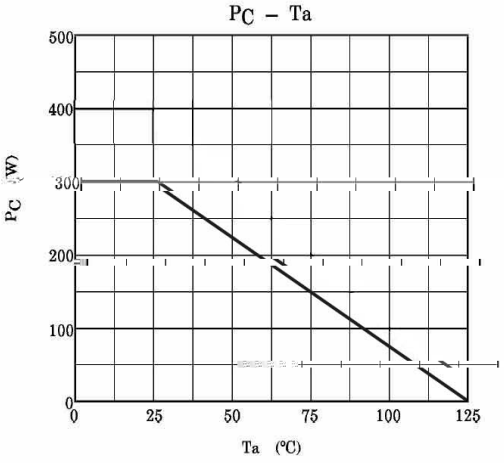

IC – VCE
COMMON EMITTER
Ta=25°C
IB=–0.2mA
IC (mA)
VCE (V)

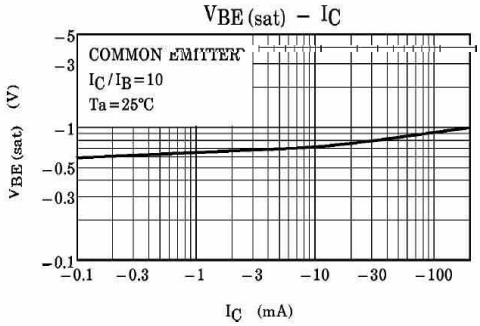

IB – VBE
COMMON EMITTER
VCE=–6V
Ta=100°C
25
–25
IB (μA)
VBE (V)


hFE – IC
COMMON EMITTER
VCE=–6V
VCE=–1V
Ta=100°C
25
–25
hFE
IC (mA)

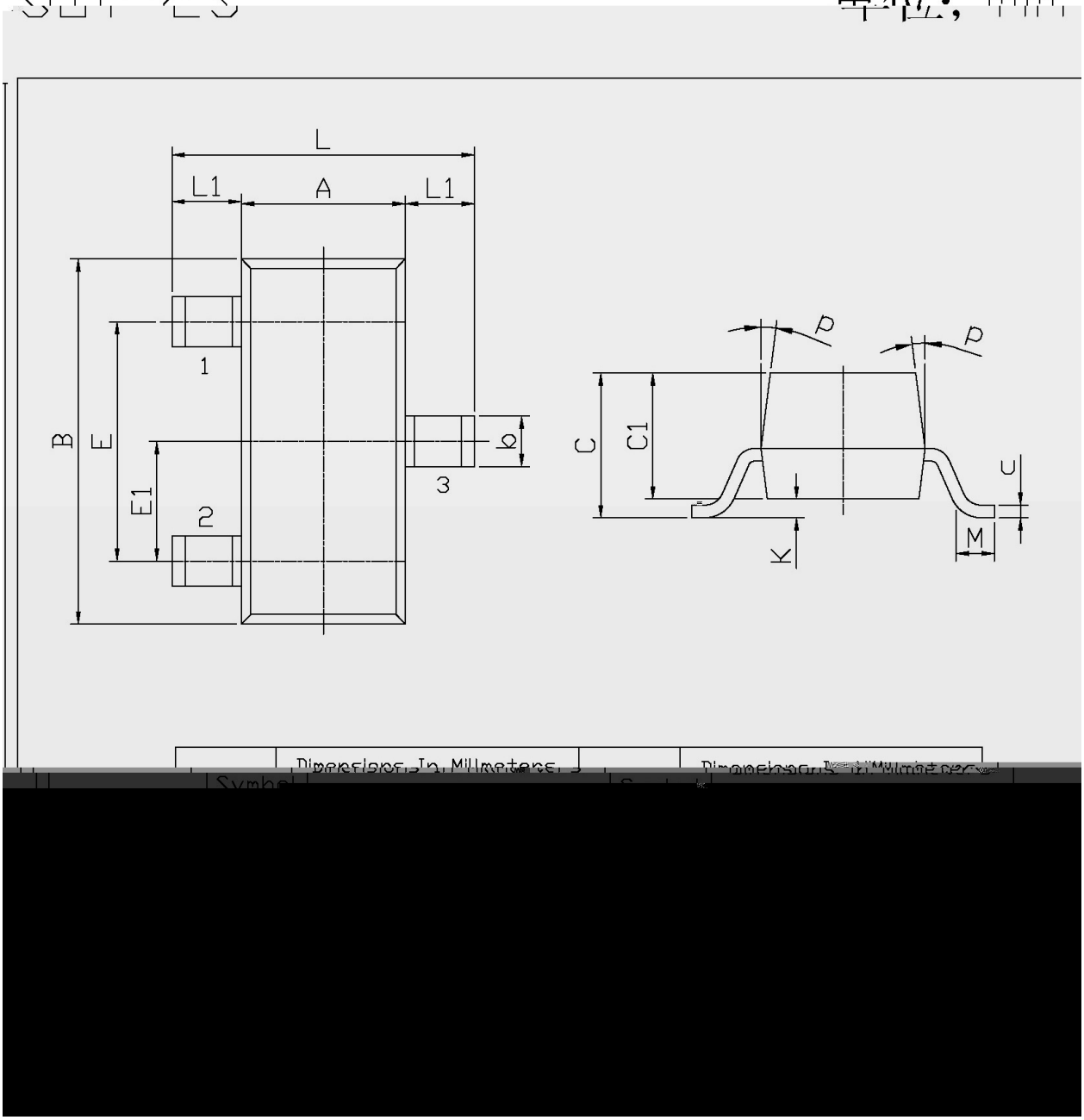

fT – IC
VCE=–10V
Ta=25°C
fT (MHz)
IC (mA)

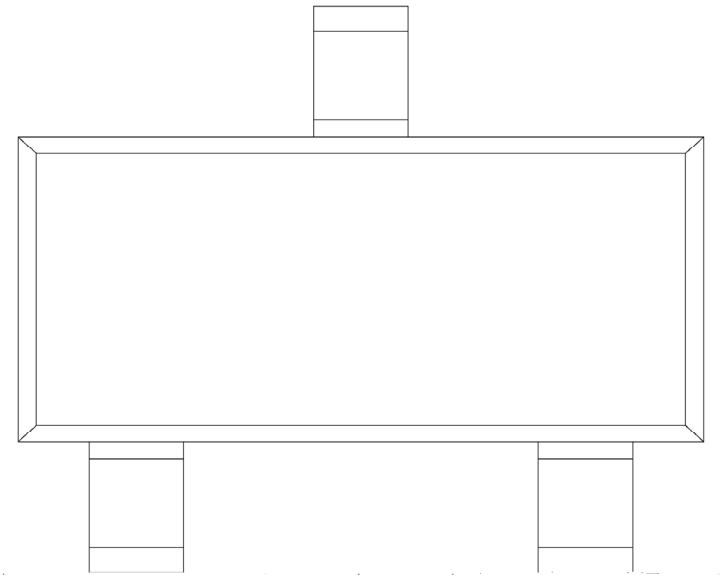

VCE (sat) – IC
COMMON EMITTER
IC/IB=10
Ta=100°C
25
–25
VCE (sat) (V)
IC (mA)


PC – Ta
PC (W)
Ta (°C)


VBE (sat) – IC
COMMON EMITTER
IC/IB=10
Ta=25°C
VBE (sat) (V)
IC (mA)

SOT-23 单位：mm





H

BA

O: h_{FE}

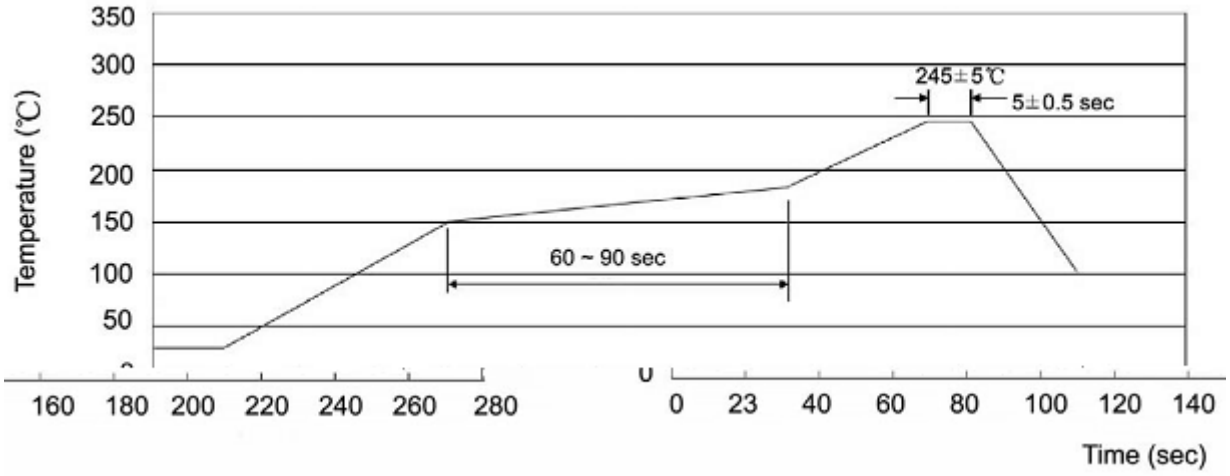
Note:

H: Company Code.

BA: Product Type Code

O: h_{FE}

Temperature Profile for IR Reflow Soldering(Pb-Free)



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.

260±5 10±1 sec.

Temp.:260±5 Time:10±1 sec

/ 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-23	3,000	10	30,000	8	180,000	7″ ×8	180×120×180	390×385×205