/ Descriptions

Silicon PNP transistor in a SOT-23 Plastic Package.

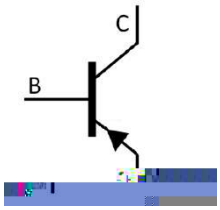
/ Features

Excellent h_{FE} linearity, complementary pair with 2SC1959M.

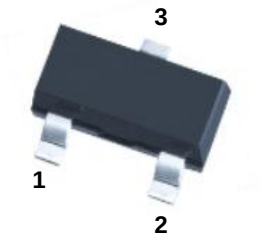
/ Applications

Audio frequency low power amplifier, driver stage amplifier, switching applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

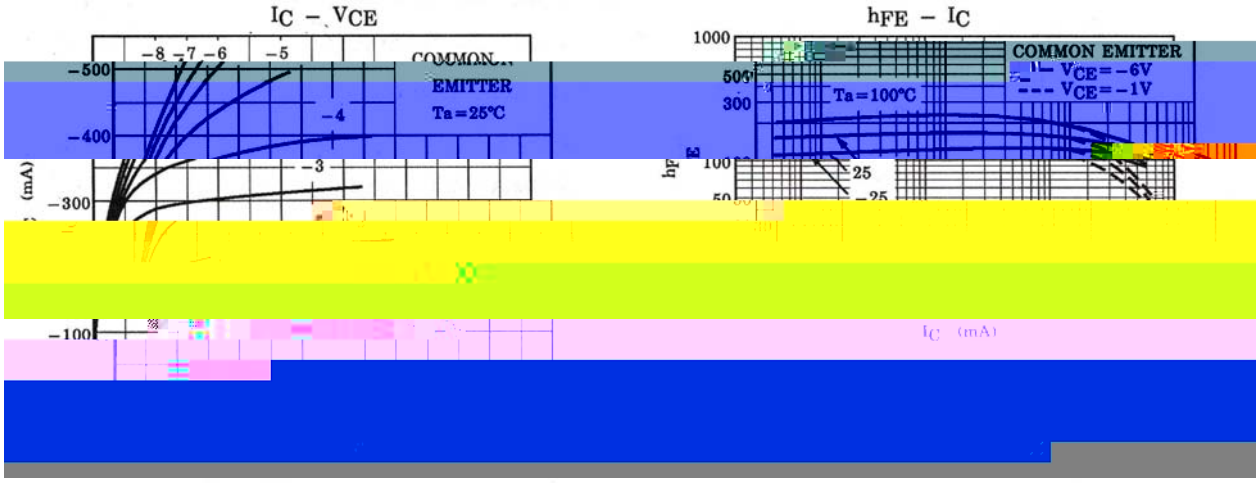
/ h_{FE} Classifications & Marking

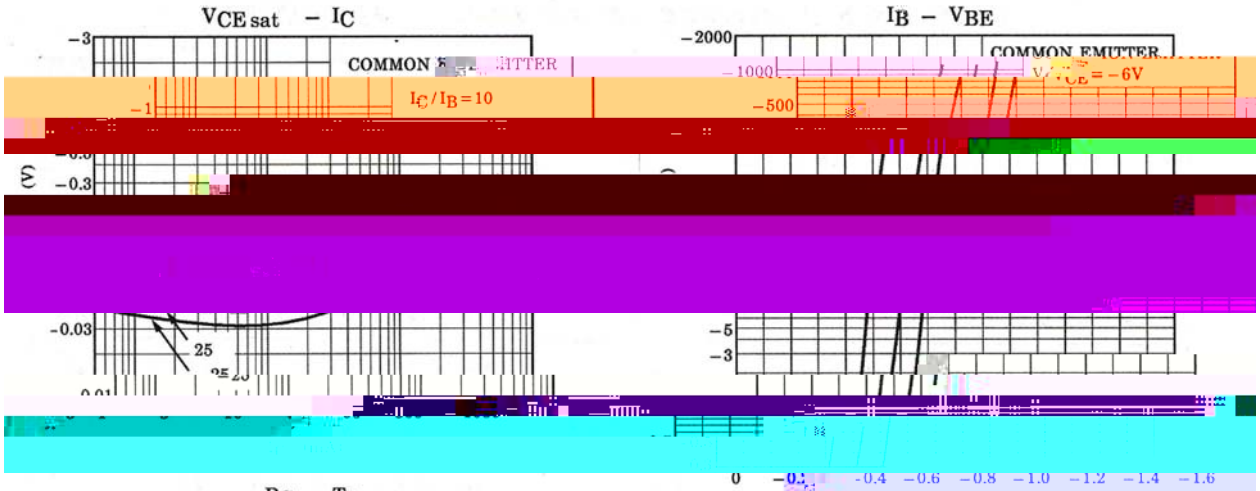
h_{FE} Classifications Symbol	O	Y
h_{FE} Range	70 140	120 240
Marking	HVAO	HVAY

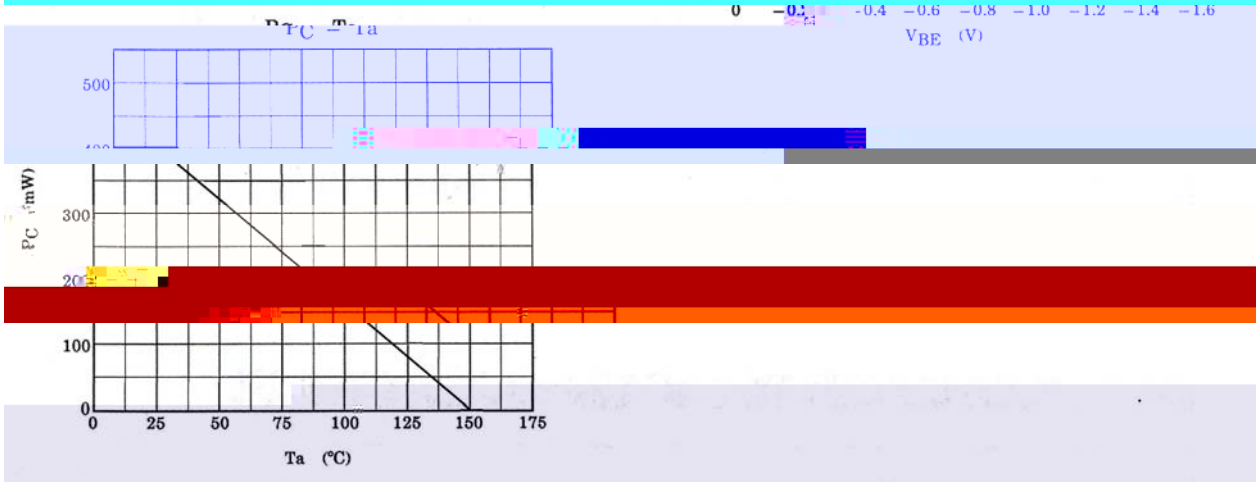
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-35	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-500	mA
Collector Base	I_B	-100	mA
Collector Power Dissipation	P_C	400	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-35V 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}=-1.0V I_C=-100mA	70		240	
	$h_{FE(2)}$	V_{CE}=-6.0V I_C=-400mA	25			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-100mA I_B=-10mA		-0.1	-0.25	V
Collector to Base Voltage	V_{BE}	V_{CE}=-1.0V I_C=-100mA		-0.8	-1.0	V
Transition Frequency	f_T	V_{CE}=-6.0V I_C=-20mA		200		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-6.0V I_E=0 f=1.0MHz		13		pF

/ Electrical Characteristic Curve

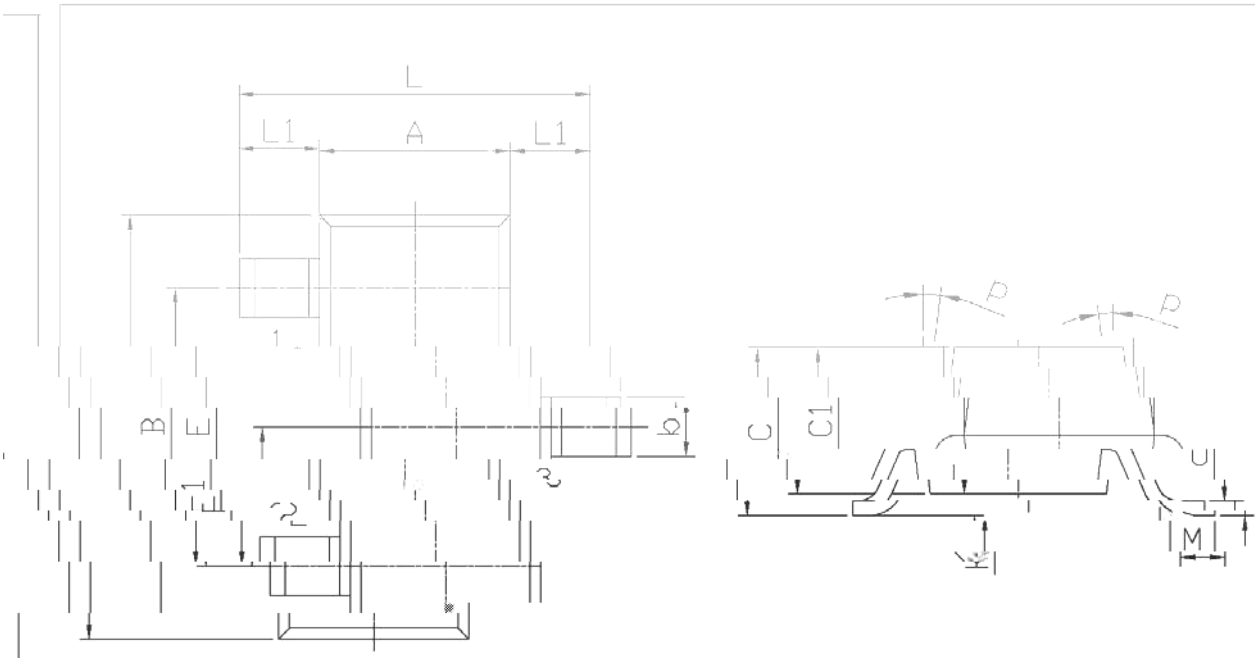






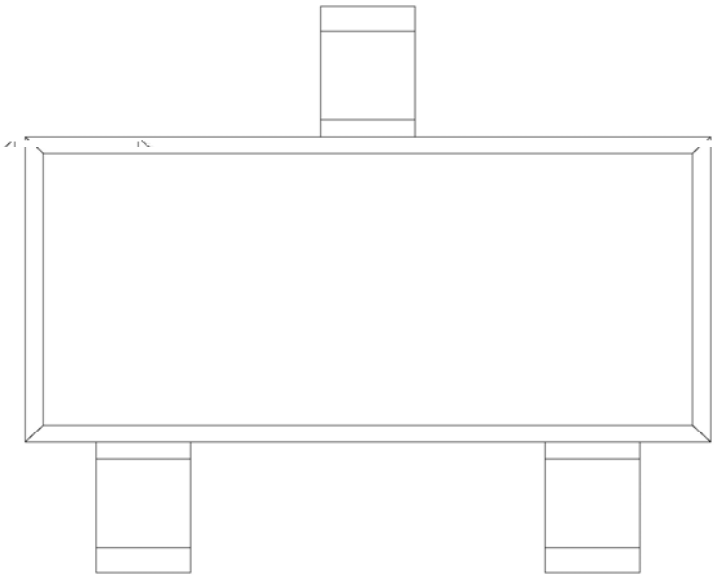
/ Package Dimensions

SOT-23 单位：mm



Symbol	Dimensions In Millmeters		Dimensions In Millmeters

/ Marking Instructions

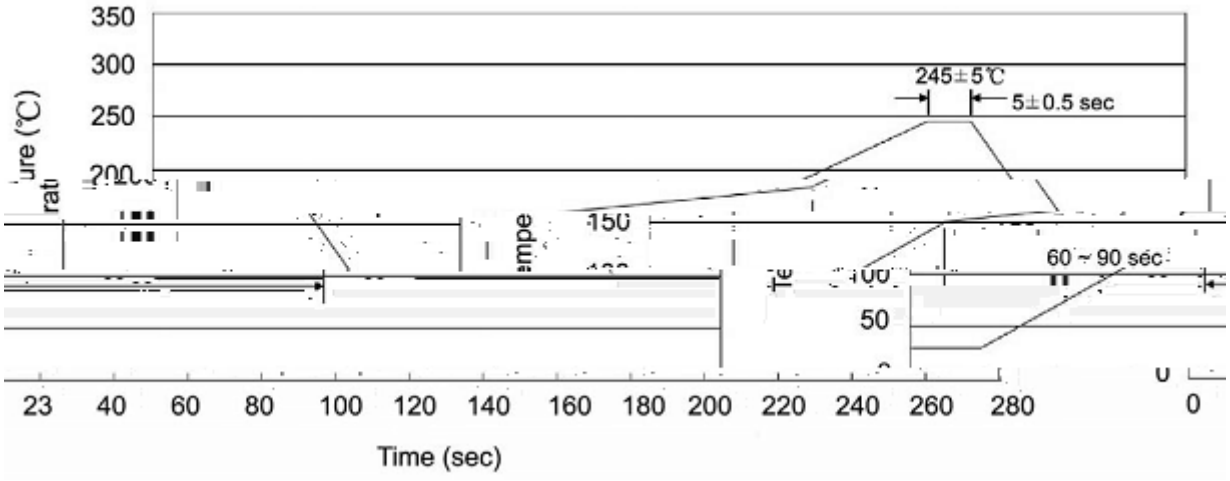


h_{FE}

Note:

H: Company Code.

( ) / 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.

/ 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