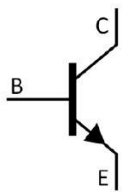


SOT-23 NPN Silicon NPN transistor in a SOT-23 Plastic Package.

EB , (150) $I_B=5\text{mA}$ 1
High V_{EBO} , high reverse h_{FE} (typ.150, $V_{CE}=-2\text{V}$, $I_C=-2\text{mA}$), low on resistance($R_{on}=1\Omega$, $I_B=5\text{mA}$).

For muting and switching applications.



PIN 1 Base PIN 2 Emitter PIN 3 Collector

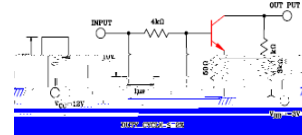
/ h_{FE} Classifications & Marking

h_{FE} Classifications
Symbol

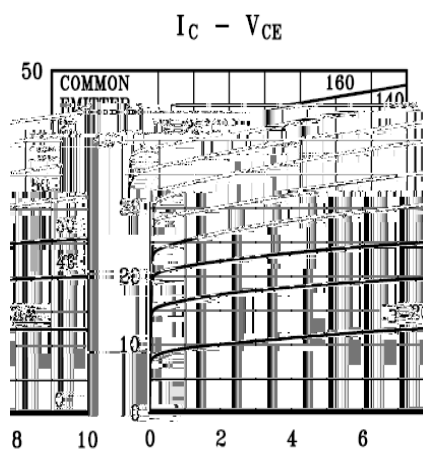
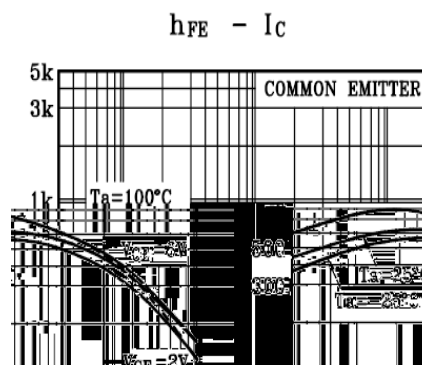
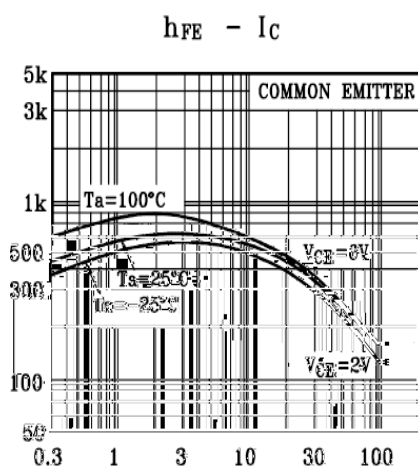
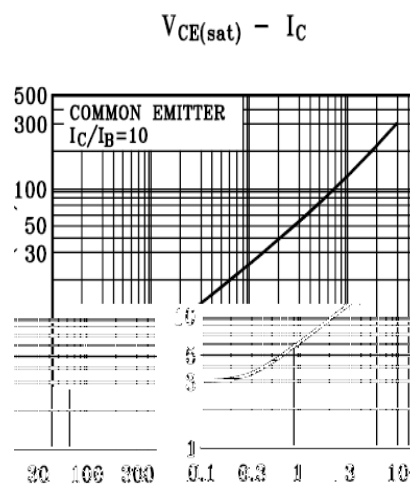
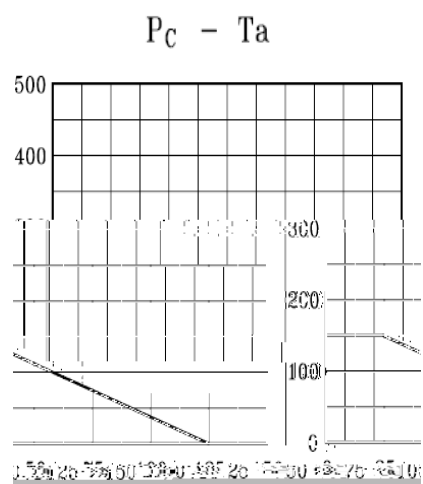
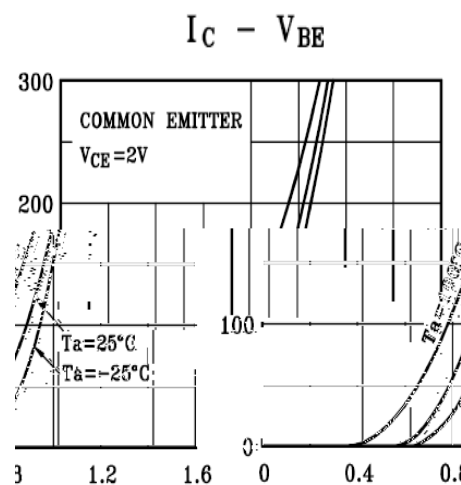
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	25	V
Collector Current	I_C	300	mA
Base Current	I_B	60	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

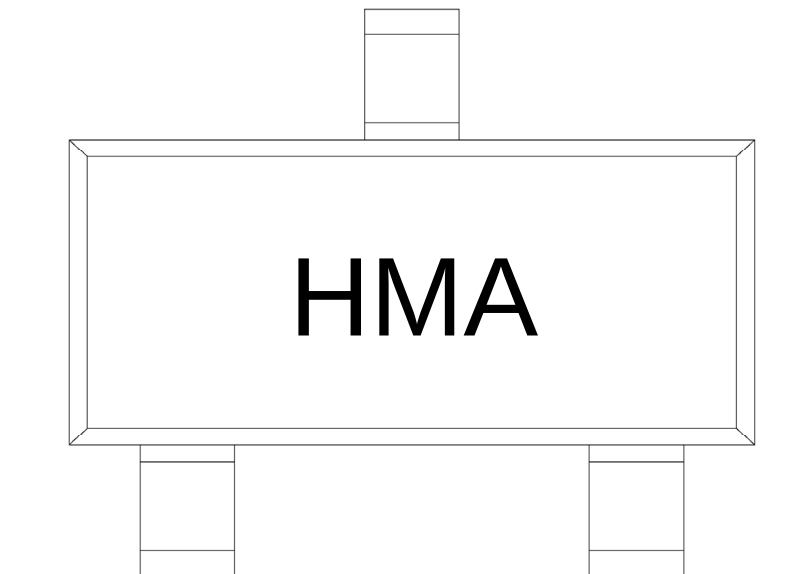
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CBO}	$I_C=100\mu A$	50			V
Collector to Base Breakdown Voltage	V_{CEO}	$I_C=500\mu A$	20			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=100\mu A$	25			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=50V$ $I_E=0$			0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=25V$ $I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=2.0V$ $I_C=4.0mA$	200		1200	
Base-Emitter Voltage	V_{BE}	$V_{CE}=2.0V$ $I_C=4.0mA$		0.61		V
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA$ $I_B=3.0mA$		0.042	0.3	V
Transition Frequency	f_T	$V_{CE}=6.0V$ $I_C=4.0mA$		30		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		4.8	7	pF
Turu-On Time	T_{on}			160		nS
Storage Time	T_{stg}			500		
Fall Time	t_f			130		

/ Electrical Characteristic Curve



/ Package Dimensions

/ Marking Instructions



H

M

A h_{FE}

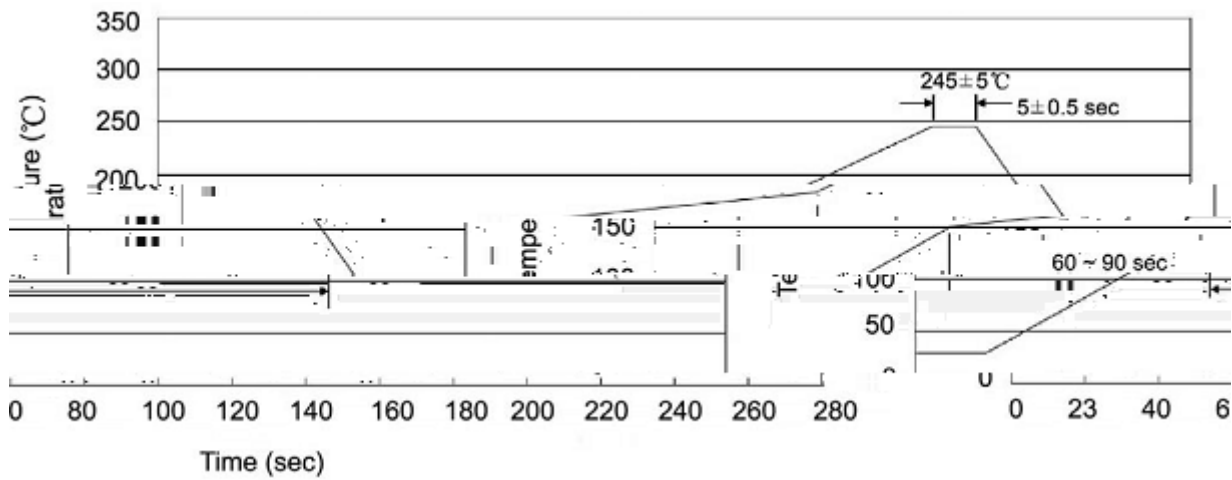
Note:

H Company Code

M Product Type

A h_{FE} Classifications Symbol

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

25 150

60 90sec;

2

245±5

5±0.5sec;

3

2 10 /sec.
- 1.Preheating:25~150 , Time:60~90sec.

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

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-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices