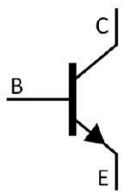


Silicon NPN transistor in a SOT-23 Plastic Package.

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

For muting and switching applications.



PIN 1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications
Symbol

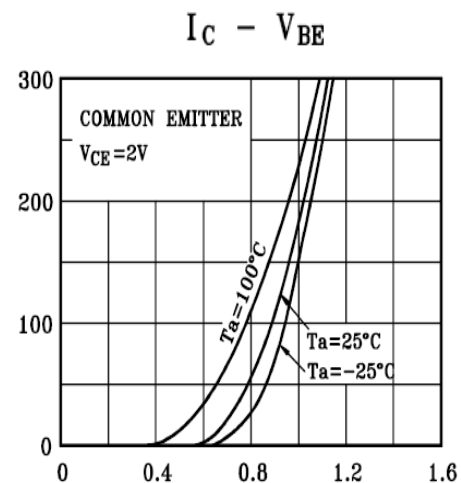
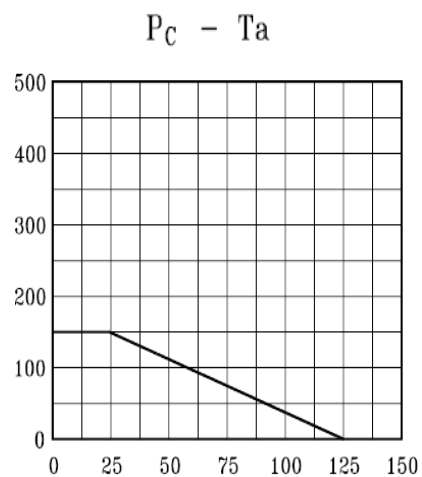
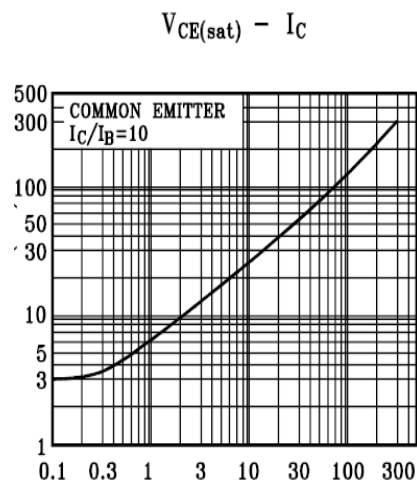
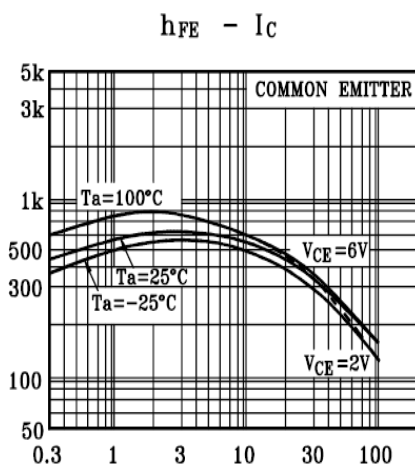
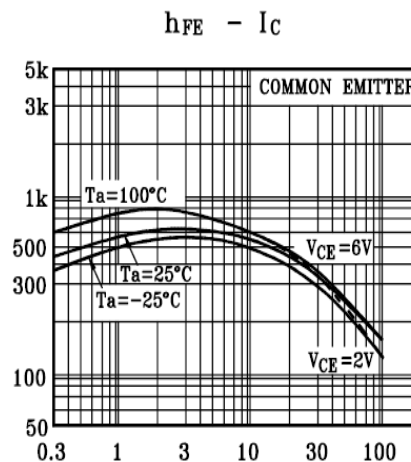
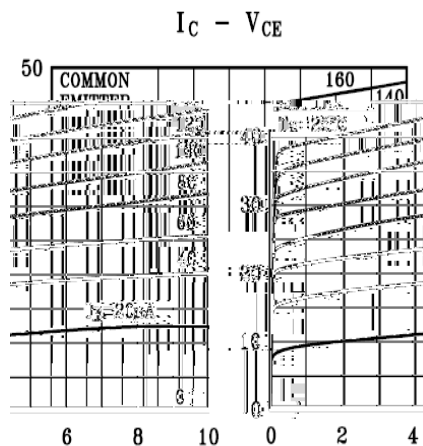
/ Absolute Maximum Ratings(Ta=25)

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

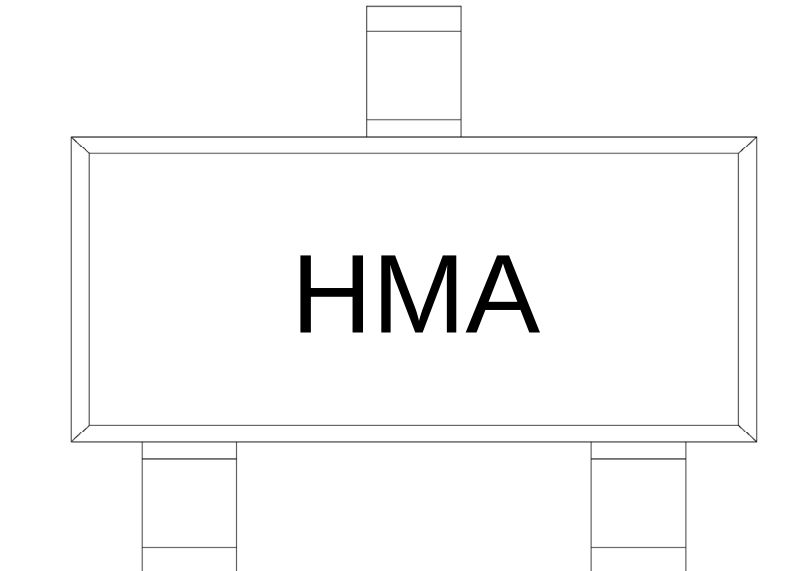
SOT-23

单位 mm



D	2.75	0.20	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			

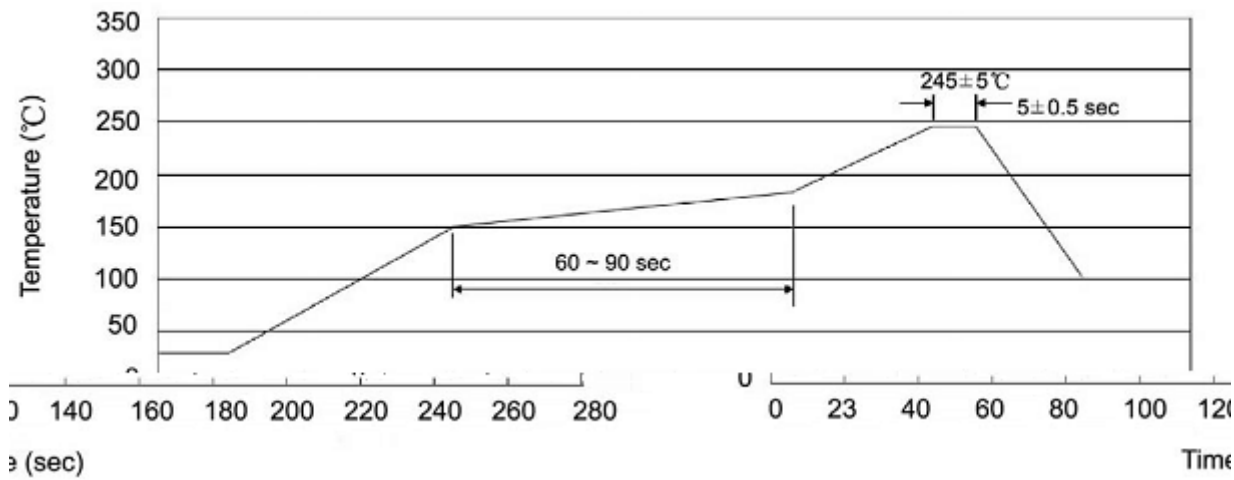
/ Marking Instructions



Note:

	Company Code
M	Product Type
	h_{FE} Classifications Symbol

() /



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)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ Notices