

修订记录 / Revised record

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MMBT3906

Rev.G May.-2020

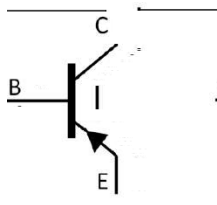
LMN620 P Q Q R STS U V W X Y Z [Silicon PNP transistor in a SOT-23 Plastic Package.

β_{FE} $V_{CE(sat)}$ [? @ E F [

High DC Current Gain, Low Collector to Emitter Saturation Voltage. HF product.

` a b c d e * f g [

General purpose amplifier and switching.



PIN 1 h Base

PIN 2 h Emitter

PIN 3 h Collector

放大及印章代码 / h_{FE} Classifications & Marki

极限参数 / Absolute Maximum Ratings(Ta=25°C)

i j Parameter	k l Symbol	j m Rating	n o Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-40	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-200	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

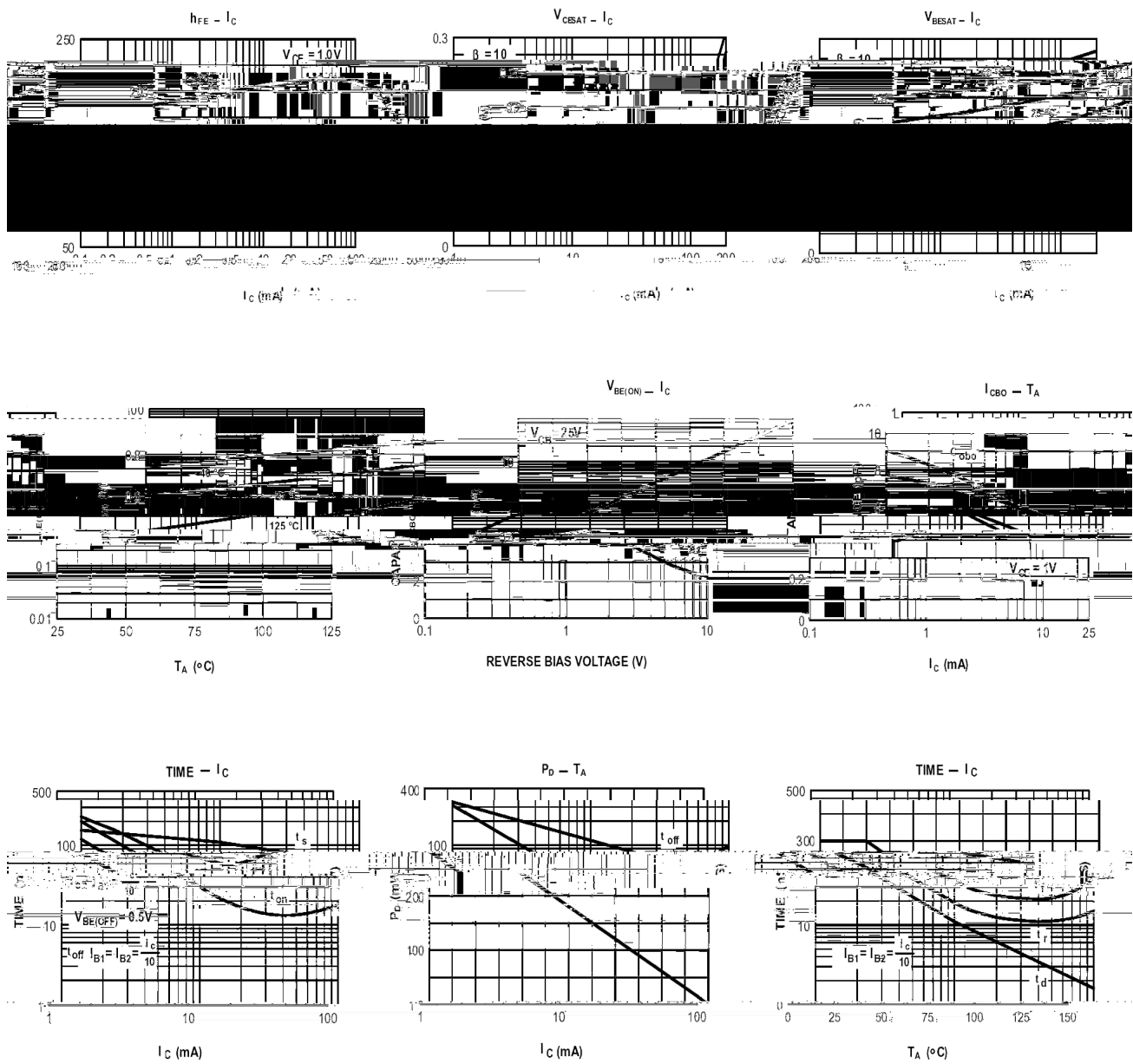
电性能参数 / Electrical Characteristics(Ta=25°C)

i j Parameter	k l Symbol	p q r s Test Conditions	t u m Min	v w m Typ	t e m Max	n o Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=-10\mu A$ $I_E=0$	-40			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=-1.0mA$ $I_B=0$	-40			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=-10\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-30V$ $I_E=0$			-0.05	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-3.0V$ $I_C=0$			-0.05	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-1.0V$ $I_C=-10mA$	100		300	
	$h_{FE(2)}$	$V_{CE}=-1.0V$ $I_C=-100mA$	30			
	$h_{FE(3)}$	$V_{CE}=-1.0V$ $I_C=-50mA$	60			
	$h_{FE(4)}$	$V_{CE}=-1.0V$ $I_C=-1.0mA$	80			
	$h_{FE(5)}$	$V_{CE}=-1.0V$ $I_C=-0.1mA$	60			
Collector-Emitter Saturation Voltage	$V_{CE(sat) (1)}$	$I_C=-10mA$ $I_B=-1.0mA$			-0.25	V
	$V_{CE(sat) (2)}$	$I_C=-50mA$ $I_B=-5.0mA$			-0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat) (1)}$	$I_C=-10mA$ $I_B=-1.0mA$	-0.65		-0.85	V
	$V_{BE(sat) (2)}$	$I_C=-50mA$ $I_B=-5.0mA$			-0.95	V

电性能参数 / Electrical Characteristics(Ta=25°C)

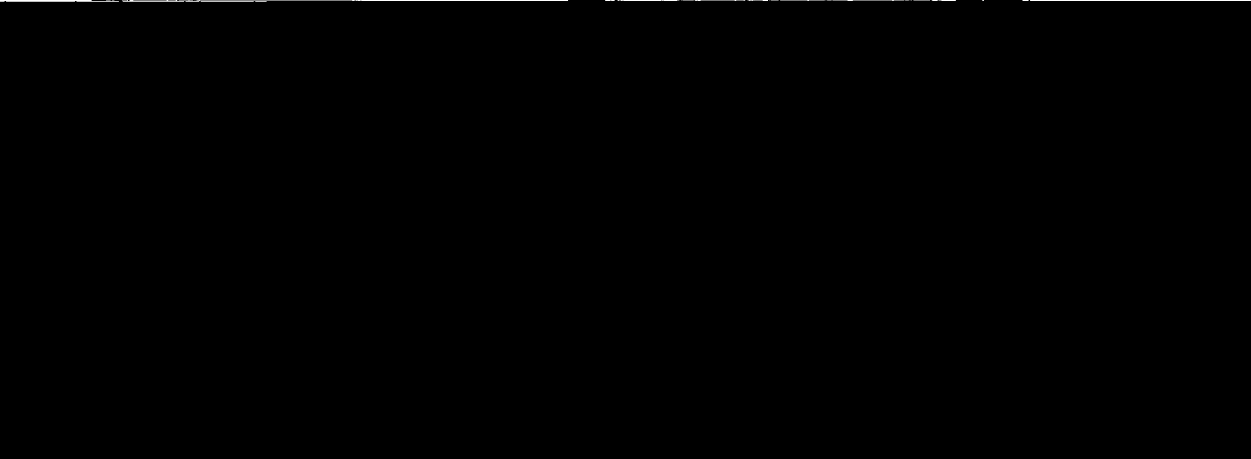
i j Parameter	k l Symbol	p q r s Test Conditions	t u m Min	v w m Typ	t e m Max	n o Unit
Transition Frequency	f_T	$V_{CE}=-20V$ $I_C=-10mA$ $f=100MHz$	250			MHz
Output Capacitance	C_{ob}	$V_{CB}=-5.0V$ $f=1.0MHz$			4.5	pF
Storage Time	t_{stg}	$V_{CC}=-3.0V$ $I_C=-10mA$ $I_{B1}=-I_{B2}=-1.0mA$			225	ns
Fall Time	t_f	$V_{CC}=-3.0V$ $I_C=-10mA$ $I_{B1}=-I_{B2}=-1.0mA$			75	ns
Delay Time	t_d	$V_{CC}=-3.0V$ $V_{BE}=-0.5V$ $I_C=-10mA$ $I_{B1}=-1.0mA$			35	ns
Rise Time	t_r	$V_{CC}=-3.0V$ $V_{BE}=-0.5V$ $I_C=-10mA$ $I_{B1}=-1.0mA$			35	ns
Input Capacitance	C_{ib}	$V_{EB}=-0.5V$ $f=1.0MHz$			10	pF

电参数曲线图 / Electrical Characteristic Curve

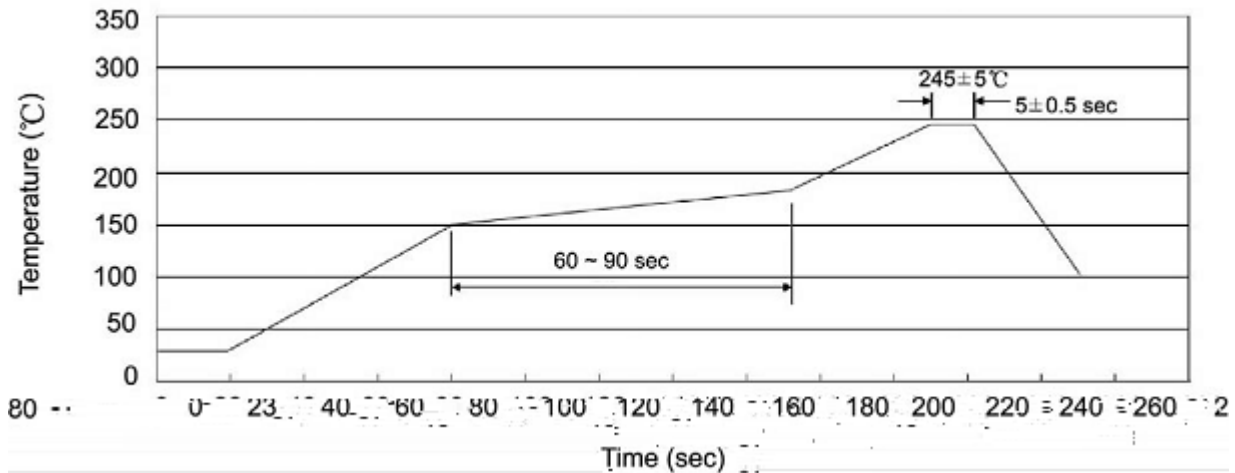


外形尺寸图 / Package Dimensions

UNIT: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L1	0.45	0.65	C1	0.91	1.20
A	1.5	1.50	K	0	
B	2.70	3.10	M	0.20MIN	
E	1.70	2.10	P	7°	
E1	0.85	1.05			
b	0.35	0.55			

回流焊温度曲线图(无铅) / 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. |

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

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

包装规格 / 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

使用说明 / Notices