

/ Descriptions

JF K\$) * E GE Silicon NPN transistor in a SOT-23 Plastic Package.

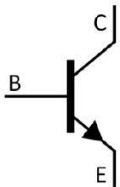
/ Features

High f_T .

/ Applications

Suitable for RF amplifier in FM/AM radios.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	B	C	D
h_{FE} Range	40~110	65~160	100~260
Marking	HUB	HUC	HUD

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	3.0	V
Collector Current	I_C	15	mA
Collector Power Dissipation	P_C	100	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- Base Breakdown Voltage	V_{CBO}	$I_C=10\mu A$	30			V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E=10\mu A$	3.0			V
DC Current Gain	h_{FE}	$V_{CE}=6.0V$ $I_C=1.0mA$	40		260	
Transition Frequency	f_T	$V_{CB}=6.0V$ $I_C=1.0mA$	450	650		MHz
Base to Emitter Voltage	V_{BE}	$V_{CB}=6.0V$ $I_C=1.0mA$		0.72		V
Common Emitter Reverse Transfer Capacitance	C_{re}	$V_{CB}=6.0V$ $I_C=1.0mA$ $f=10.7MHz$		0.8	1.0	PF
Power Gain	P_G	$V_{CB}=6.0V$ $I_C=1.0mA$ $f=100MHz$		24		dB
Noise Figure	NF	$V_{CB}=6.0V$ $I_C=1.0mA$ $f=100MHz$		3.3		dB

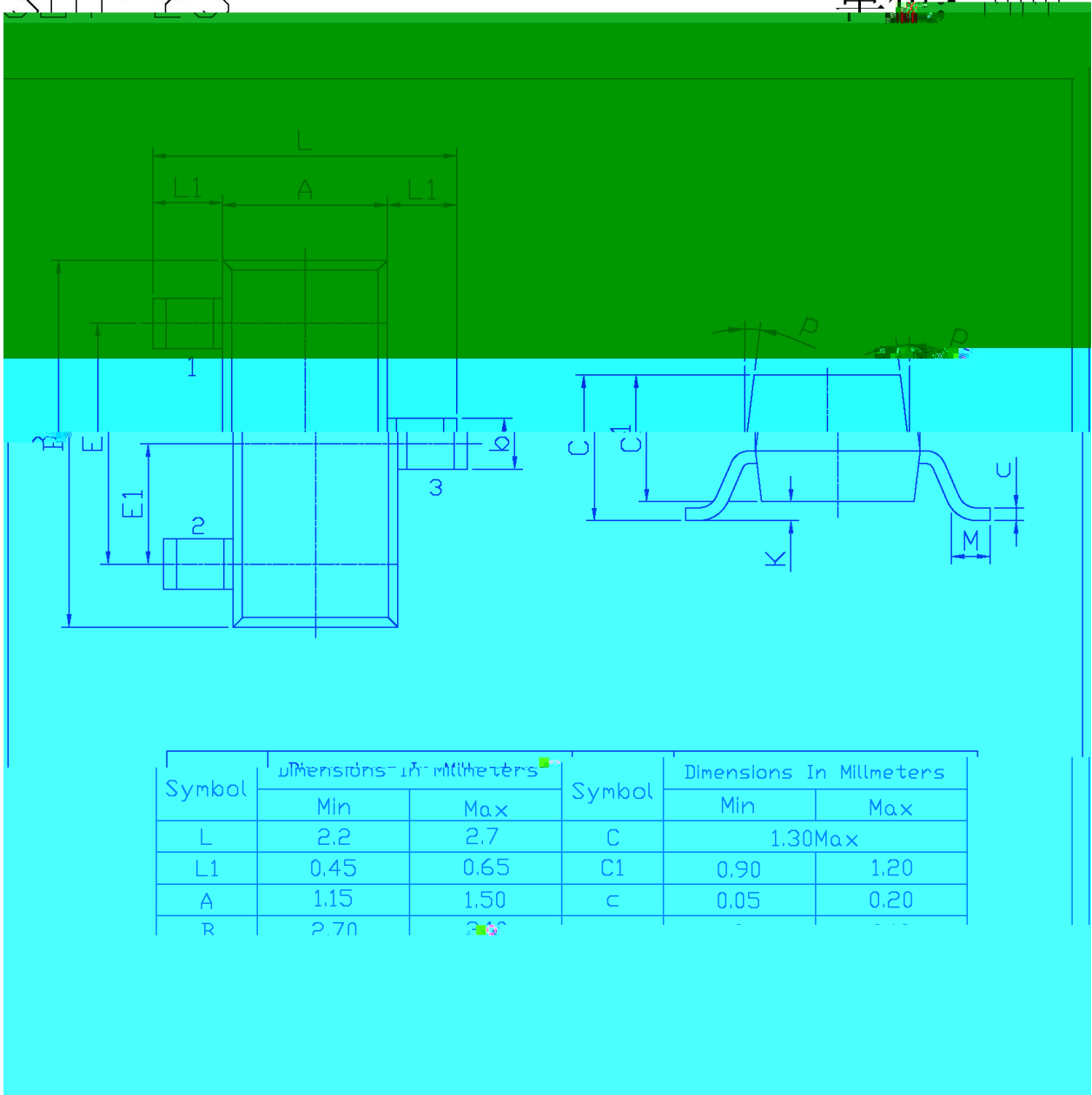
/ Electrical Characteristic Curve



/ Package Dimensions

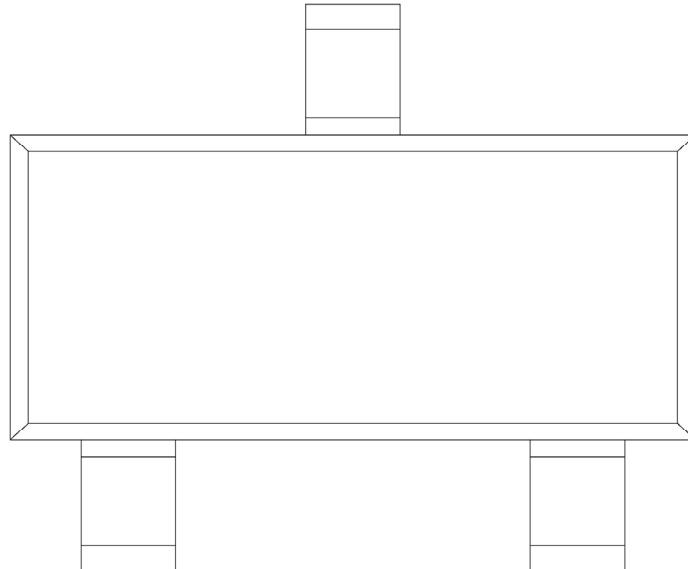
SOT-23

单位: mm

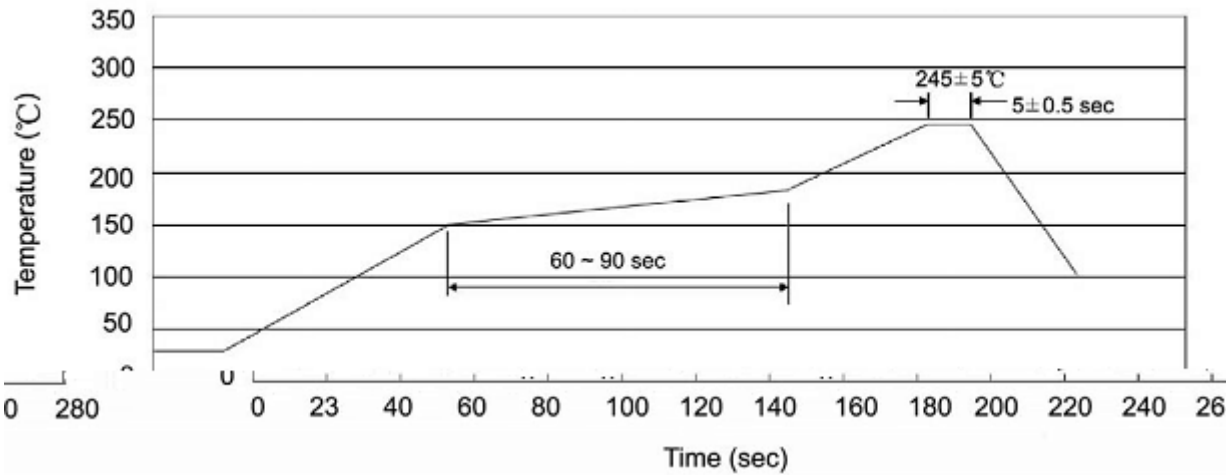


Symbol	Dimensions in Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
R	2.70	3.40			

/ Marking Instructions



() / 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
SOT-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

/ Notices