

9014MG
Rev.G Dec.-2023

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

G: #_=< # 0' (, D >
High P_c and h_{FE} , excellent h_{FE} 9R-0

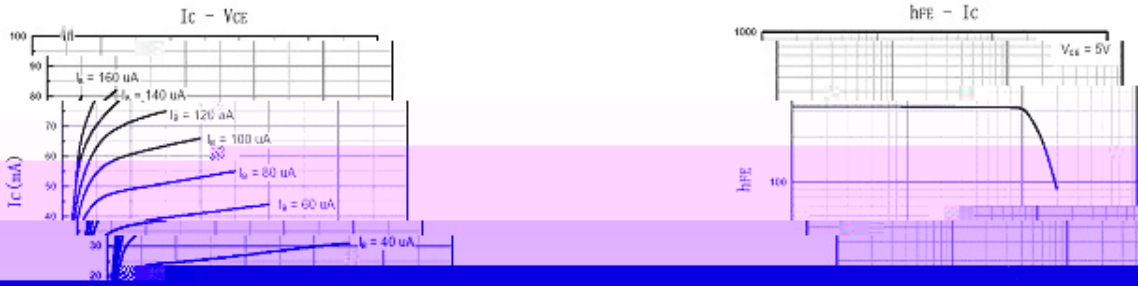
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CBO}	50	V
Collector to Emitter Voltage	V _{CEO}	45	V
Emitter to Base Voltage	V _{EBO}	5.0	V
Collector Current	I _C	100	mA
Collector Power Dissipation	P _C	200	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 Base Breakdown Voltage	V _{CBO}	I _C =0.1mA I _E =0	50			V
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =1.0mA I _B =0	45			V
Emitter to Base Breakdown Voltage	V _{EBO}	I _E =0.1mA I _C =0	5.0			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =50V I _E =0			0.05	A
Emitter Cut-Off Current	I _{EBO}	V _{EB} =5.0V I _C =0			0.05	A
DC Current Gain	h _{FE}	V _{CE} =5.0V I _C =1.0mA	60		1000	
Collector-Emitter Saturation voltage	V _{CE(sat)}	I _C =100mA I _B =5.0mA		0.14	0.3	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =100mA I _B =5.0mA		0.84	1.0	V
Base-Emitter Voltage	V _{BE}	V _{CE} =5.0V I _C =2.0mA		0.63	0.7	V
Transition Frequency	f _T	V _{CE} =5.0V I _C =10mA	150	270		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =10V I _E =0 f=1.0MHz		2.2	3.5	pF
Noise Figure	NF	V _{CE} =5.0V I _C =-0.2mA R _g =2.0K f=1.0KHz Δf=200Hz		0.9	10	dB

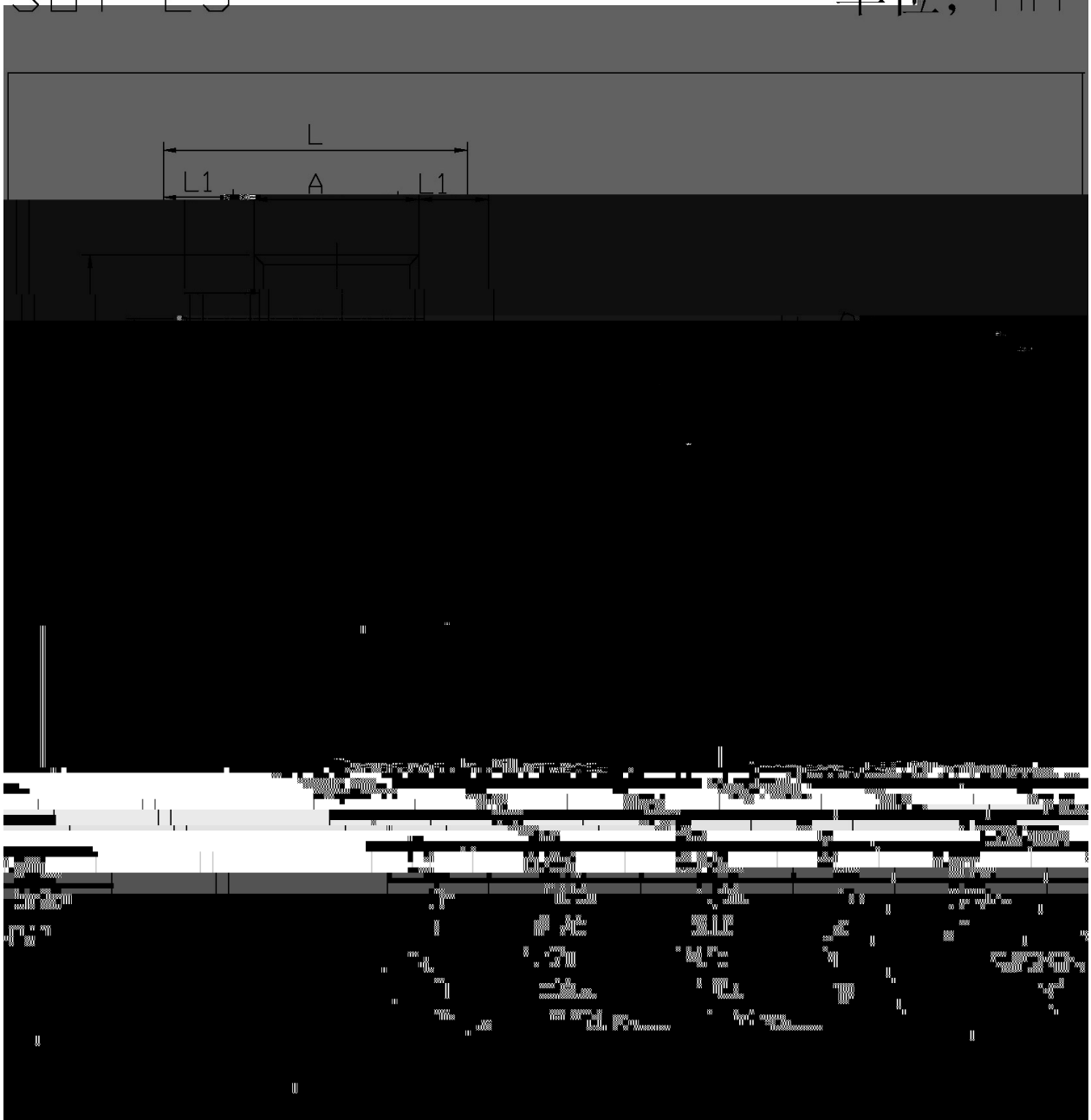
/ Electrical Characteristic Curve



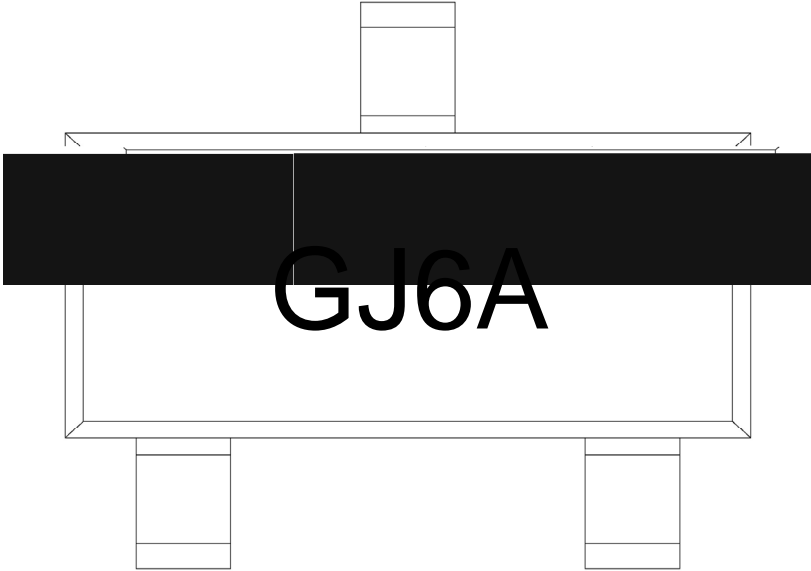
/ Package Dimensions

SOT-23

单位: mm

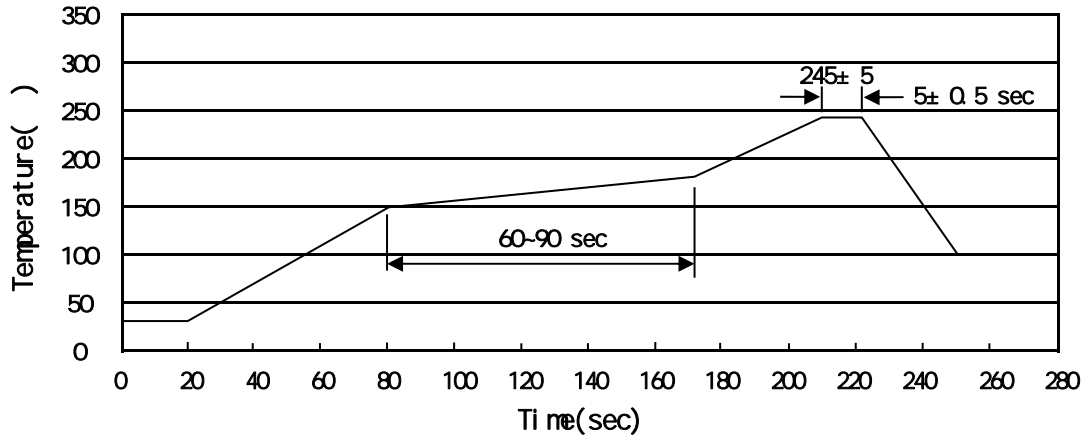


/ Marking Instructions



- >
 - A
 - 8 hFE
- Note:
- > HF Product Code
 - A Product Type Code
 - 8 hFE Classifications Symbol Code

() / Resistance to Soldering Heat Test Conditions



Note:

- | | | | |
|---|-----------|-------------|--|
| 1 | 150 ~ 180 | 60 ~ 90sec; | 1. Preheating: 150~180 , 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	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7 x8	180x120x180	390x385x205

/ Notices