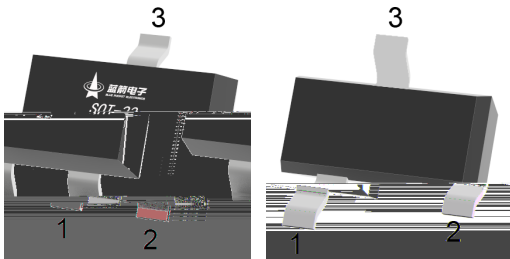
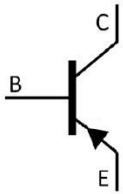


JF K\$) \* GE G Silicon PNP transistor in a SOT-23 Plastic Package.

Collector currents to 600mA. Halogen free product, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

General purpose amplifier, Meet the stringent requirements of automotive applications.



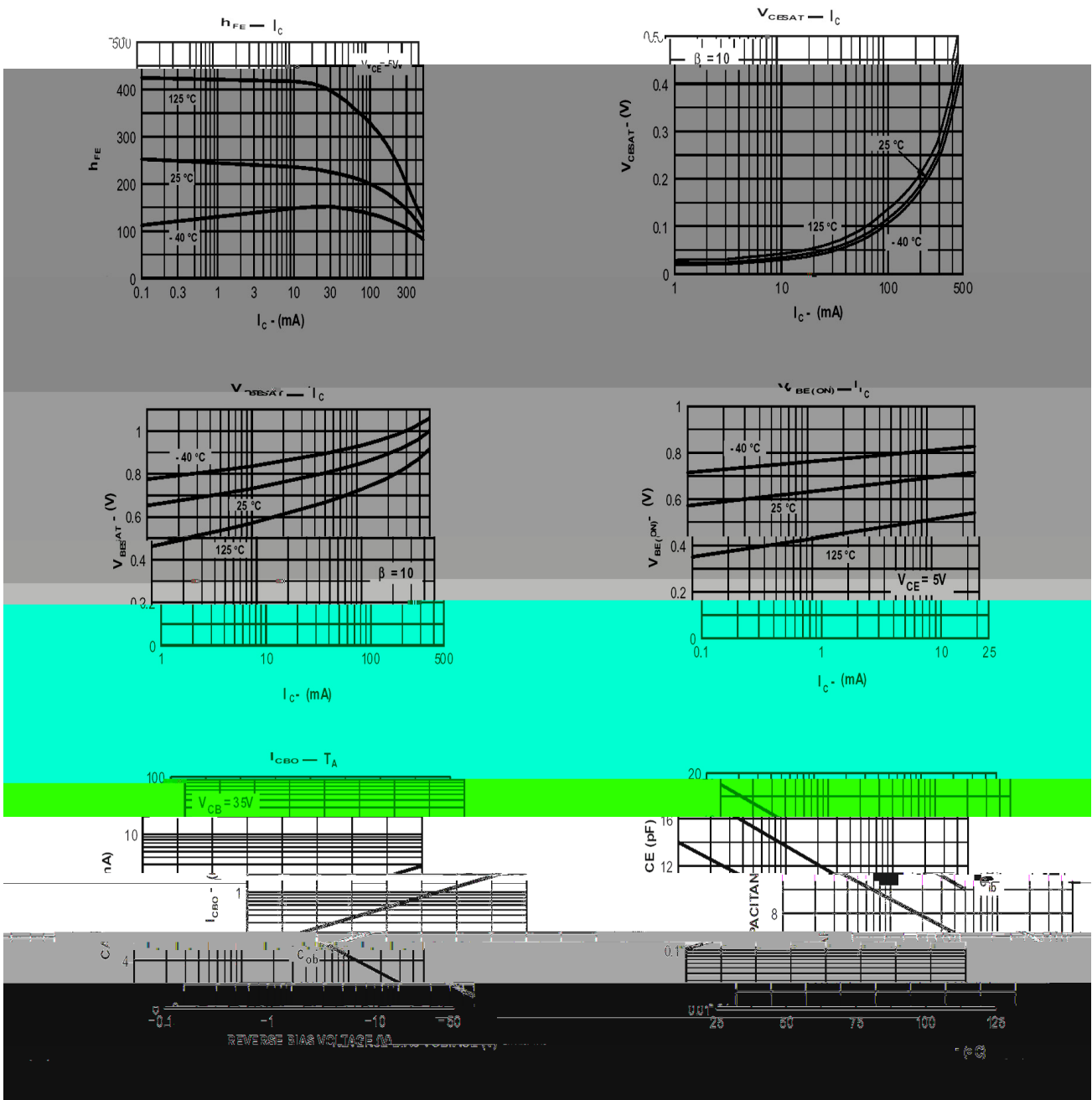
PIN 1 Base      PIN 2 Emitter      PIN 3 Collector

h <sub>FE</sub> Range	100 300
Marking	Q2F

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-60	V
Collector to Emitter Voltage	$V_{CEO}$	-60	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current	$I_C$	-600	mA
Collector Power Dissipation	$P_C$	350	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 150	°C

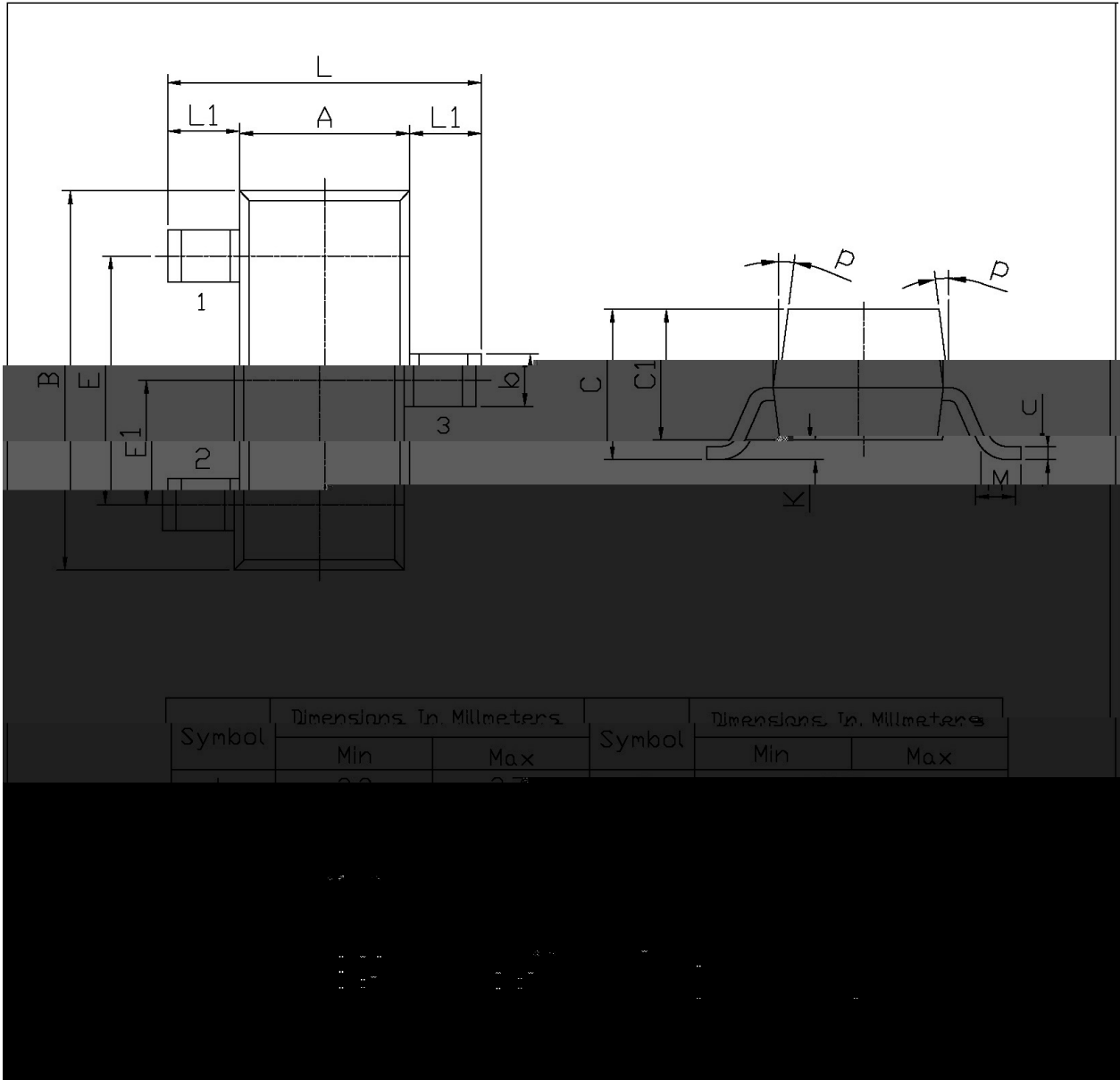
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	$V_{CBO}$	$I_C=-10\mu A$ $I_E=0$	-60			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=-10mA$ $I_B=0$	-60			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=-10\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-50V$ $I_E=0$			-0.01	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-10V$ $I_C=-150mA^*$	100		300	
	$h_{FE(2)}$	$V_{CE}=-10V$ $I_C=-500mA^*$	50			
	$h_{FE(3)}$	$V_{CE}=-10V$ $I_C=-10mA$	100			
	$h_{FE(4)}$	$V_{CE}=-10V$ $I_C=-1.0mA$	100			
	$h_{FE(5)}$	$V_{CE}=-10V$ $I_C=-0.1mA$	75			
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-150mA$ $I_B=-15mA$			-0.4	V
	$V_{CE(sat)(2)}$	$I_C=-500mA$ $I_B=-50mA$			-1.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=-150mA$ $I_B=-15mA$			-1.3	V
	$V_{BE(sat)(2)}$	$I_C=-500mA$ $I_B=-50mA$			-2.6	V
Transition Frequency	$f_T$	$V_{CE}=-20V$ $I_C=-50mA$ $f=100MHz$	200			MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-10V$ $I_E=0$ $f=1.0MHz$			8.0	pF
Turn-On Time	$t_{on}$	$V_{CC}=-30V$ $I_C=-150mA$ $I_{B1}=-15mA$			50	ns
Turn-Off Time	$t_{off}$	$V_{CC}=-30V$ $I_C=-150mA$ $I_{B1}=I_{B2}=-15mA$			100	ns

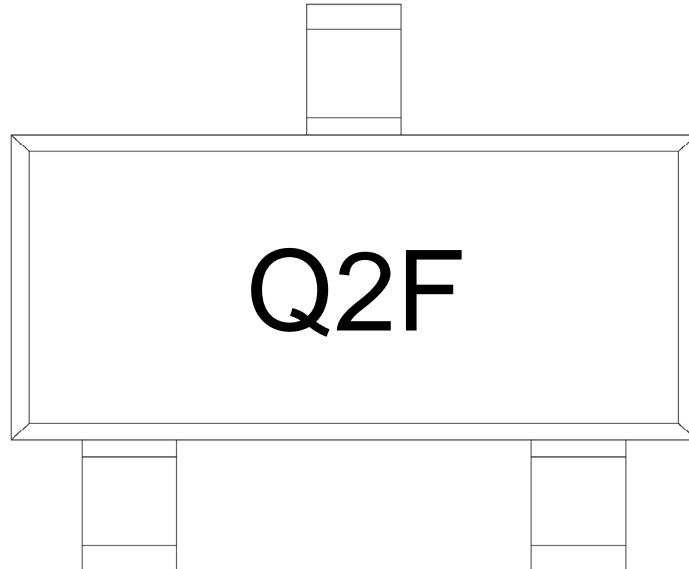
\*Pulse Test: Pulse Width 300  $\mu s$ , Duty Cycle 2.0%



# SOT-23

单位: mm





H

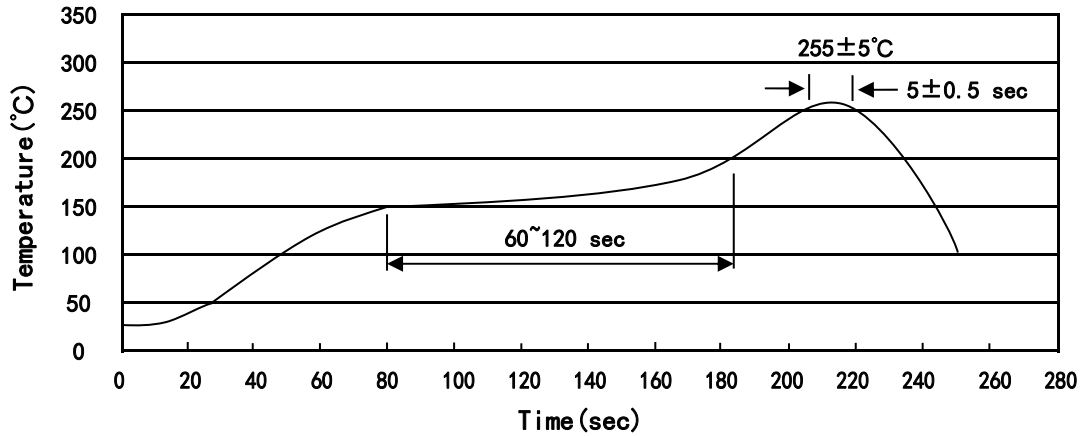
2F

Note:

Q: Automobile halogen-free product Code

2F Product Type Code

Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1            150 200            60 120sec;    1.Preheating:150~200 , Time:60~120sec.
- 2            255..5                    5..0.5sec;    2.Peak Temp.:255..5 , Duration:5..0.5sec.
- 3                            2 10 /sec.            3.Cooling Speed: 2~10 /sec.

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

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	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	180000	7 x8	180x120x180	390x385x205