

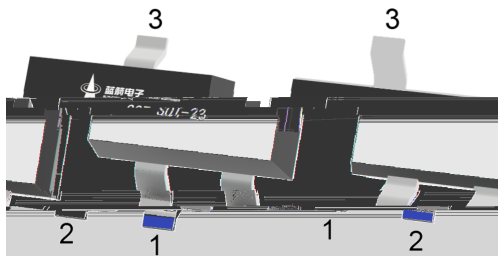
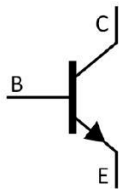
Rev.B May.-2025

SOT-23 NPN Silicon NPN transistor in a SOT-23 Plastic Package.

AEC-Q101

Low current, Low voltage, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

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



PIN 1 Base PIN 2 Emitter PIN 3 Collector

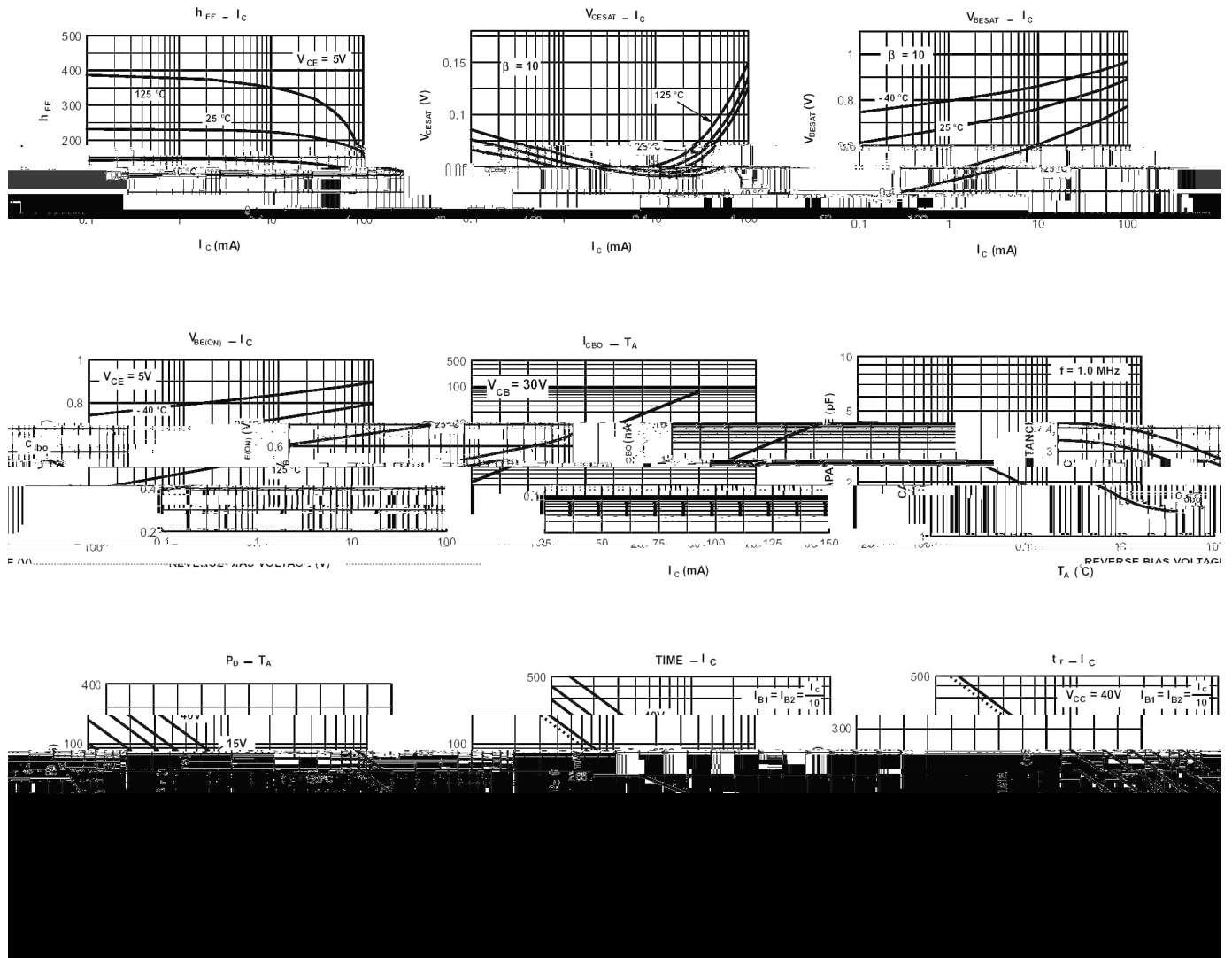
h_{FE} Range	100 300
Marking	Q1A

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	200	mA
Collector Power Dissipation	P_C	200	mW
Collector Power Dissipation	$*P_C$	350	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

 * $7 \times 5 \times 0.6 \text{ mm}$

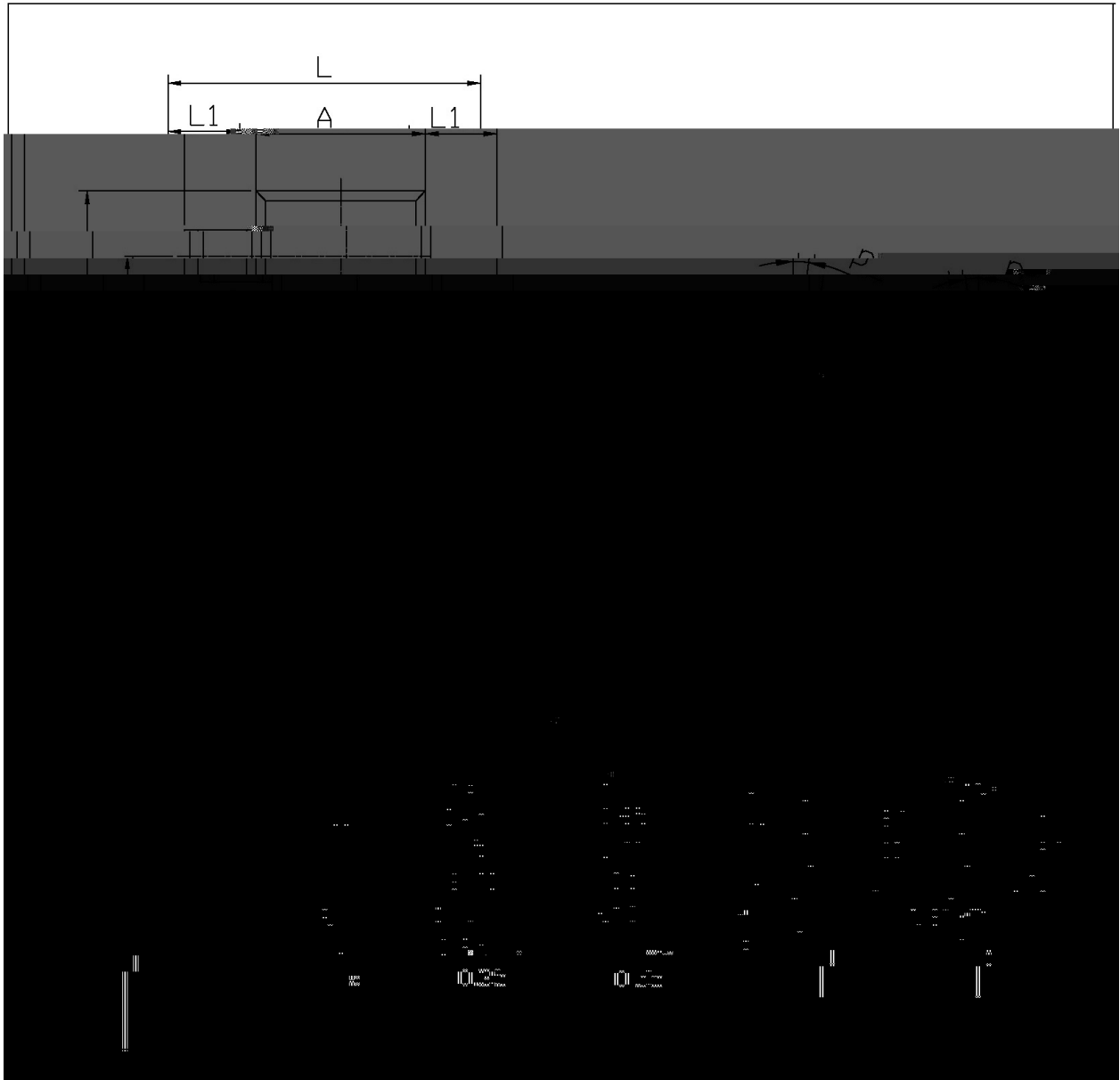
 *When mounted on a $7 \times 5 \times 0.6 \text{ mm}$ ceramic board

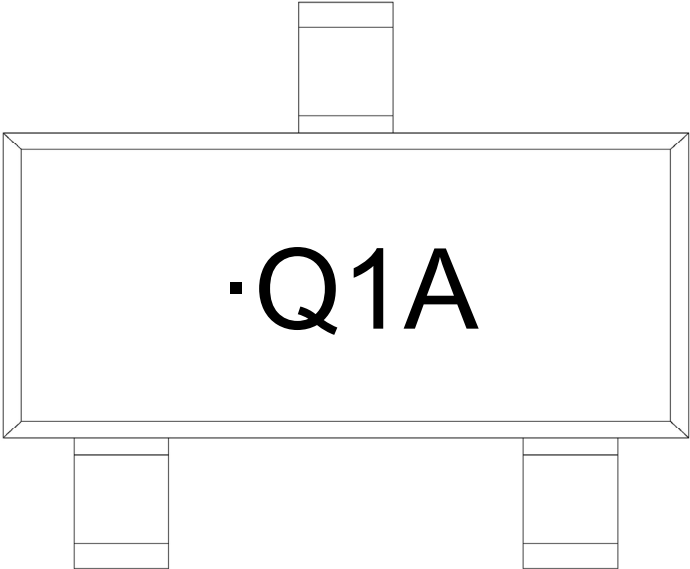
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\mu\text{A}$ $I_E=0$	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0\text{mA}$ $I_B=0$	40			V



SOT-23

单位: mm





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Q

1A

Note:

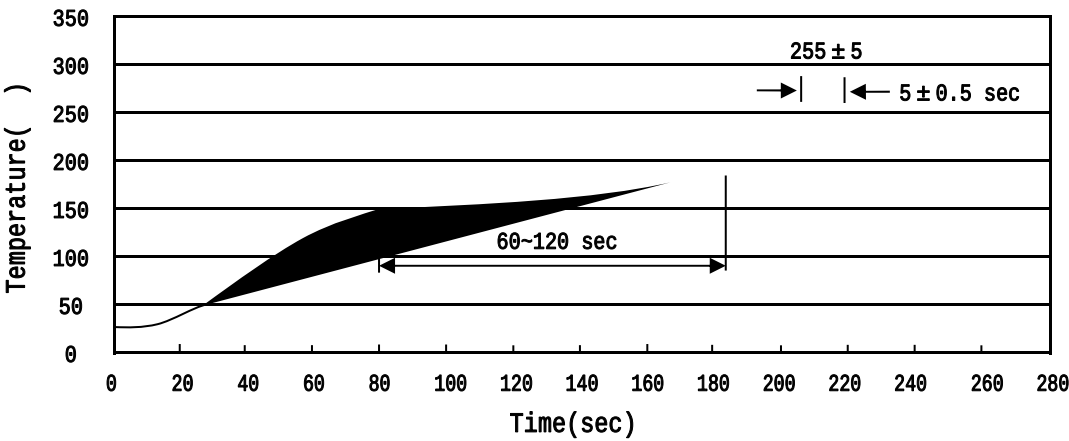
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Identify

Q: Automobile halogen-free product Code

1A 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

Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm ³)		
SOT-23	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205