

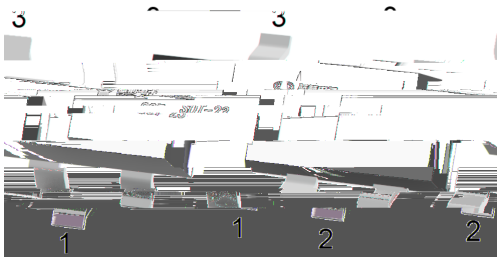
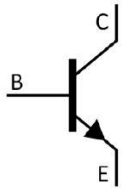
Rev.B May.-2025

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

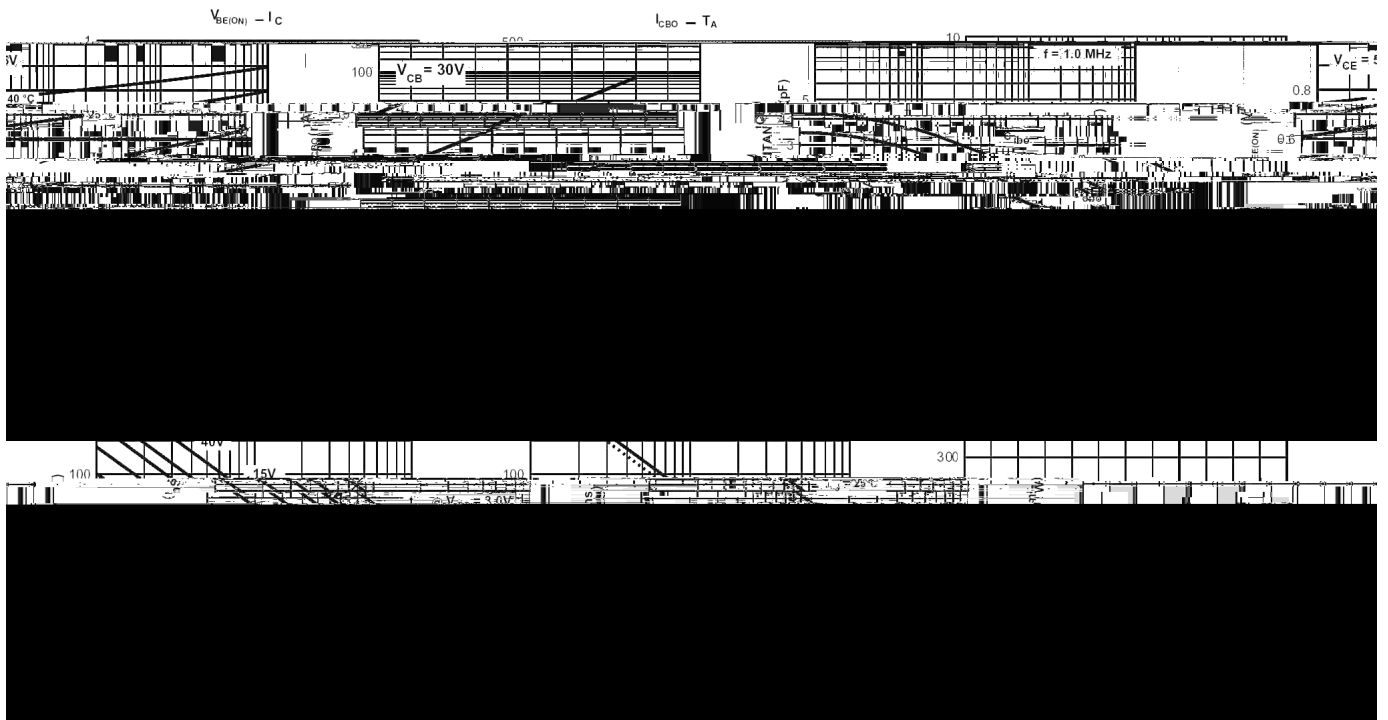
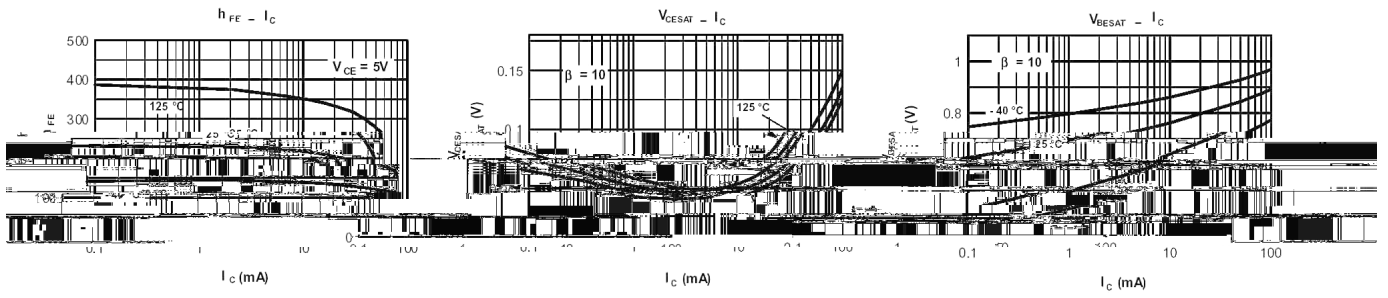
h <sub>FE</sub> Range	100 300
Marking	· Q1A

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	

\* 7×5×0.6mm

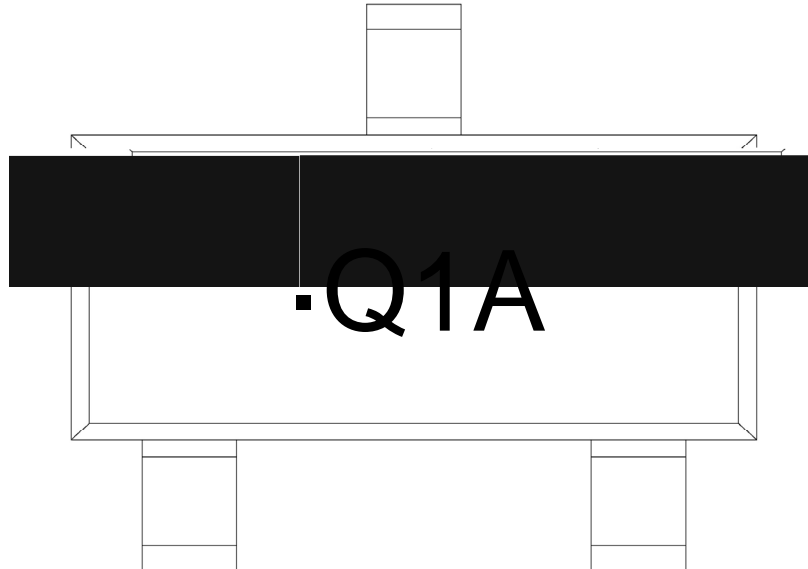
\*When mounted on a 7×5×0.6mm ceramic board

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



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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
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/ REEL

Package Type	Units <small>Units/Reel</small>	Dimension	(unit mm <sup>3</sup> )
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