

版本	修订日期	有修订的页码	修订涉及的内容	拟制	审核
F	2017-4				
G	2020-5-21	1	特征栏增加无卤标示	谢小倩	刘晓荣
H	2021-4-26	2	$P_C = 500\text{mV}$ 改为 300mV	黄超	刘晓荣

A 2022-4-23 all

型号加 BR/Q , 特征及应用增加
汽车产品描述 (符合 AEC-Q101
标准高可靠性要求、满足汽车应
用的严格要求) , 印章 H 改为 Q ,
峰值温度 245 ± 5 , 时间持续
为 $5 \pm 0.5\text{sec}$ 更新为 : 峰值温度
255

/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

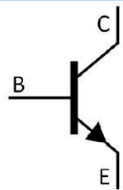
/ Features

High voltage, complementary pair with BRMMBT5401Q, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

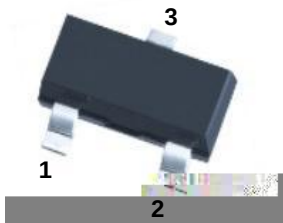
/ Applications

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

/ Equivalent Circuit



/ Pinning



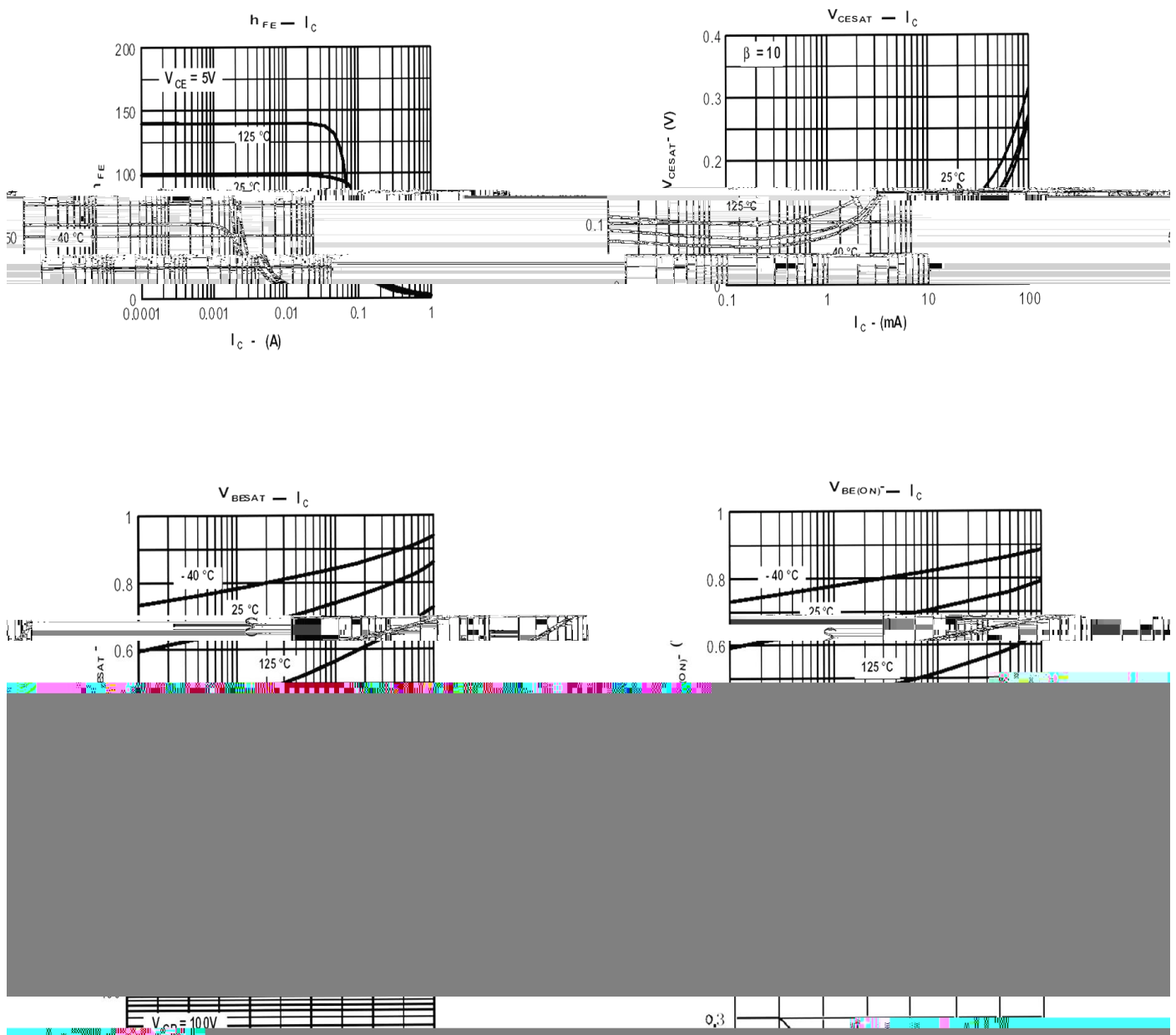
PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	50~150	100~300	200~400
Marking	QG1A	QG1B	QG1C

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	180	V

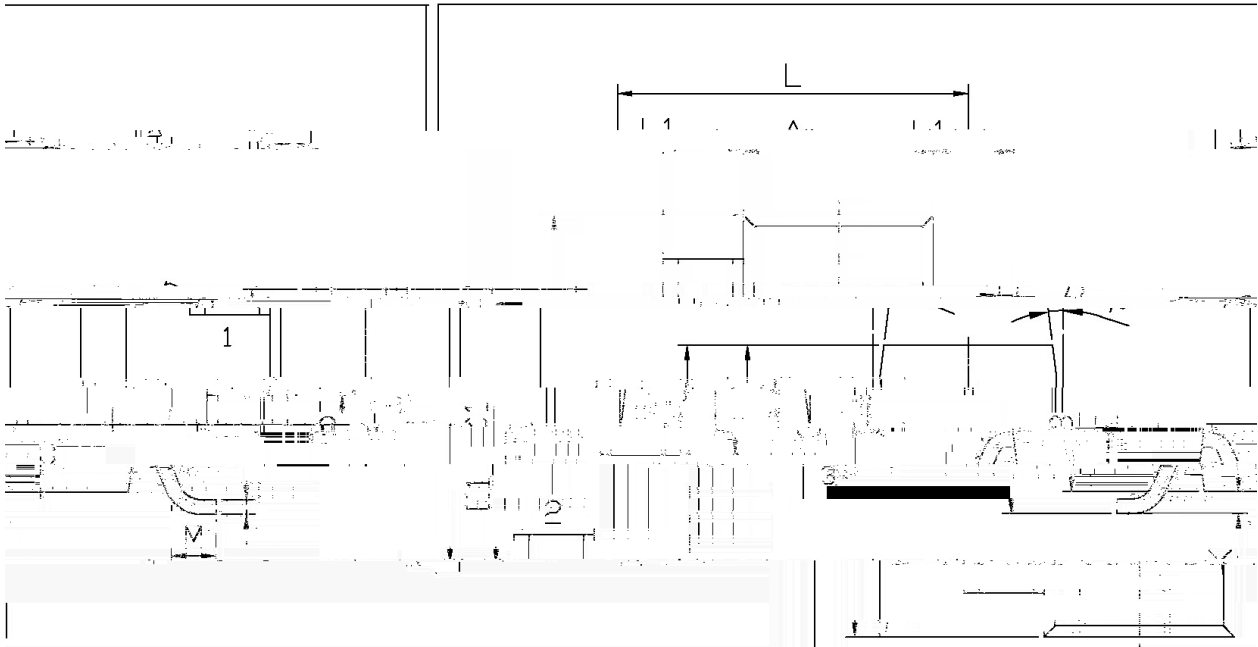
/ Electrical Characteristic Curve



/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions

Q

G1

A h_{FE}

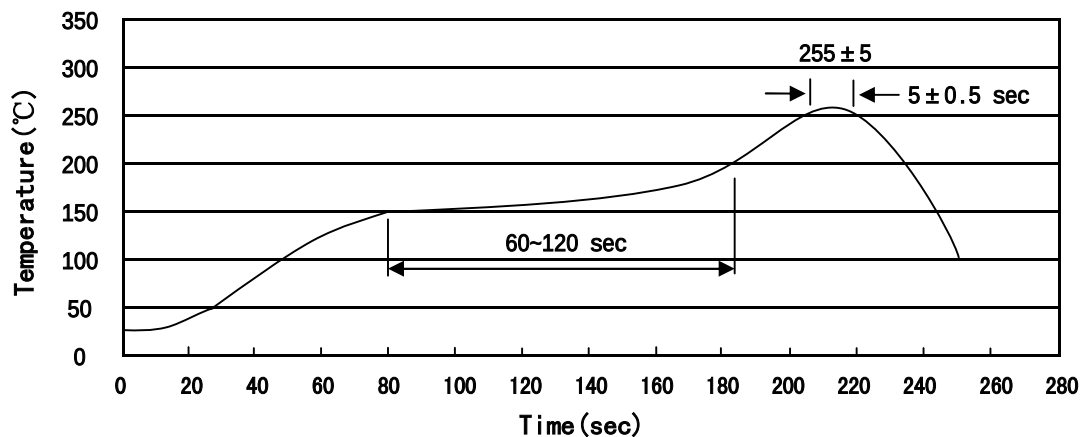
Note:

Q: Automobile halogen-free product Code

G1 Product Type Code

A h_{FE} Classifications Symbol Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

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

/ Resistance to Soldering Heat Test Conditions

260±5°C

10±1 sec.

Temp.:260±5°C

Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (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	Outer Box
SOT-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

/ Notices