

# BRMMBT3906Q

Rev.B May.-2025

## / Descriptions

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

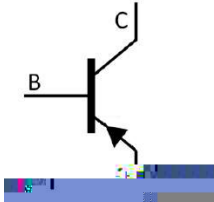
## / Features

$h_{FE} > 100$   $V_{CE(sat)} < 0.2V$   $f_T > 300MHz$   
High DC Current Gain, Low Collector to Emitter Saturation Voltage, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

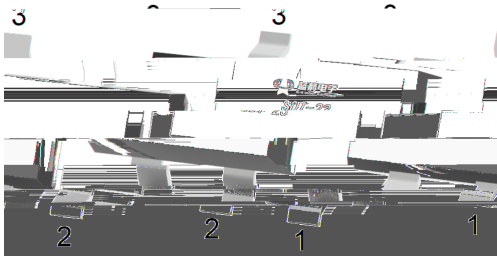
## / Applications

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

## / Equivalent Circuit



## / Pinning



PIN 1 Base      PIN 2 Emitter      PIN 3 Collector

## / $h_{FE}$ Classifications & Marking

$h_{FE}$ Range	100 300
Marking	· Q2A



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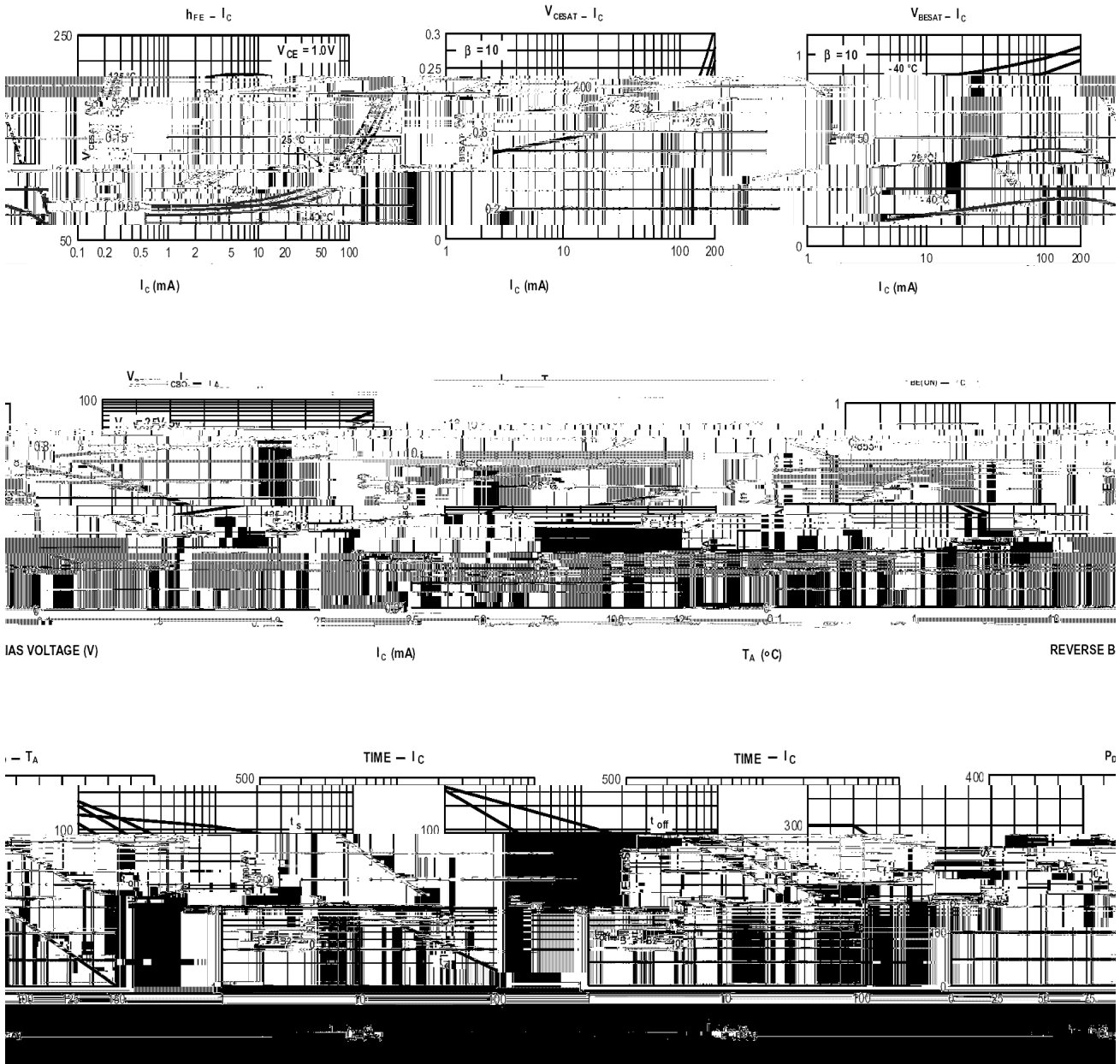
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DATA SHEET

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Transition Frequency	$f_T$	$V_{CE}=-20V$ $I_C=-10mA$ $f=100MHz$	250			MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-5.0V$ $f=1.0MHz$			4.5	pF
Storage Time	$t_{stg}$	$V_{CC}=-3.0V$ $I_C=-10mA$ $I_{B1}=-I_{B2}=-1.0mA$			225	ns
Fall Time	$t_f$	$V_{CC}=-3.0V$ $I_C=-10mA$ $I_{B1}=-I_{B2}=-1.0mA$			75	ns
Delay Time	$t_d$	$V_{CC}=-3.0V$ $V_{BE}=-0.5V$ $I_C=-10mA$ $I_{B1}=-1.0mA$			35	ns
Rise Time	$t_r$	$V_{CC}=-3.0V$ $V$				

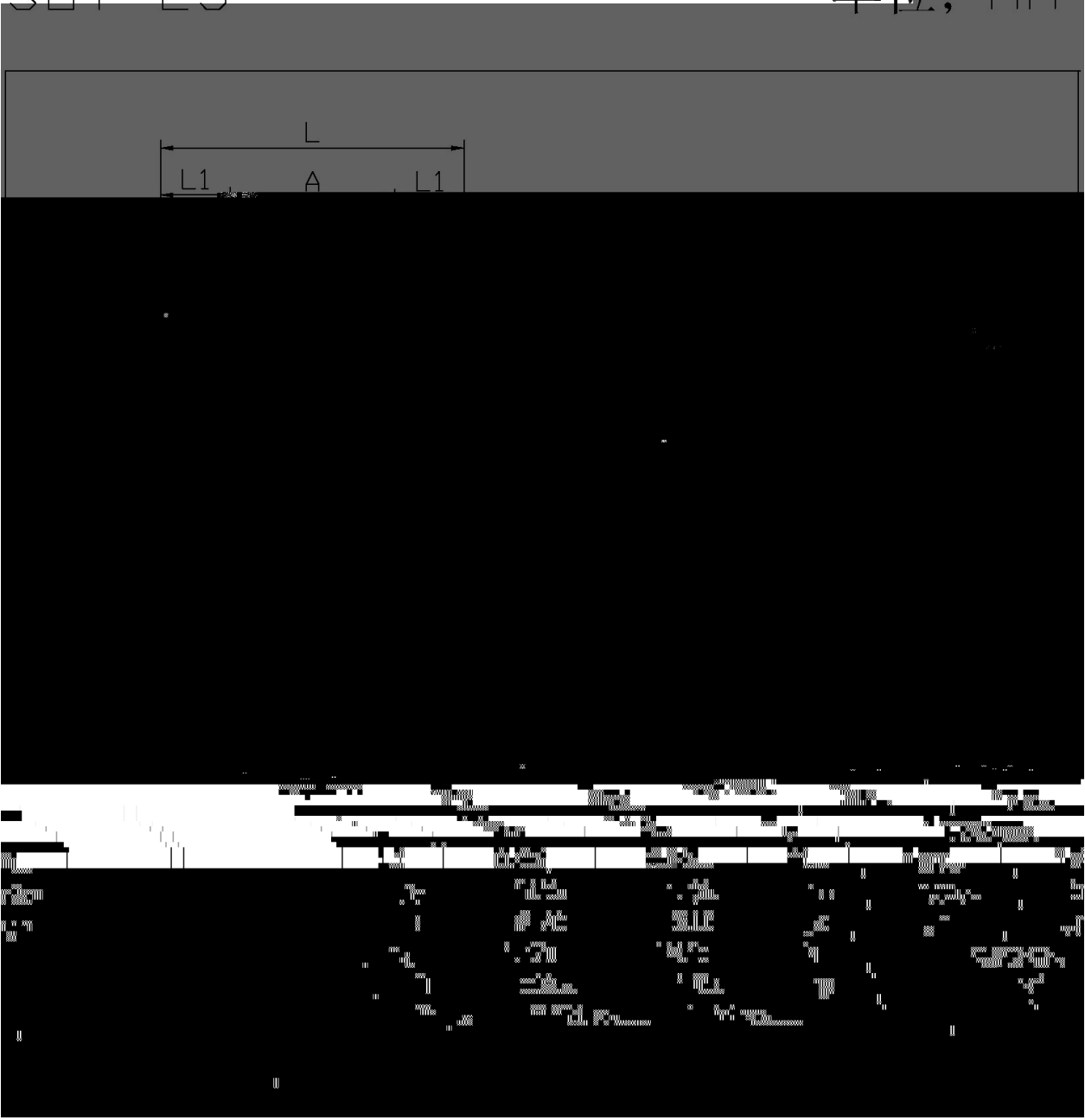
**/ Electrical Characteristic Curve**



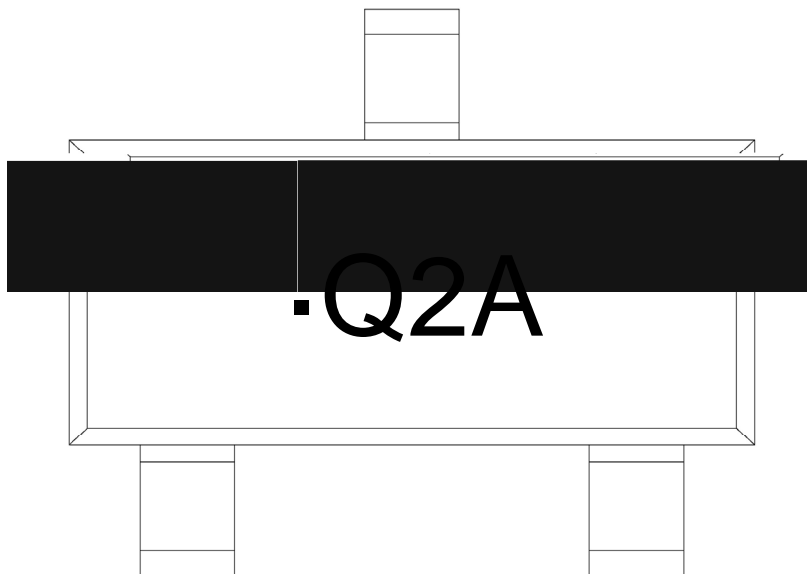
/ Package Dimensions

SOT-23

单位: mm



**/ Marking Instructions**



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Q

2A

Note:

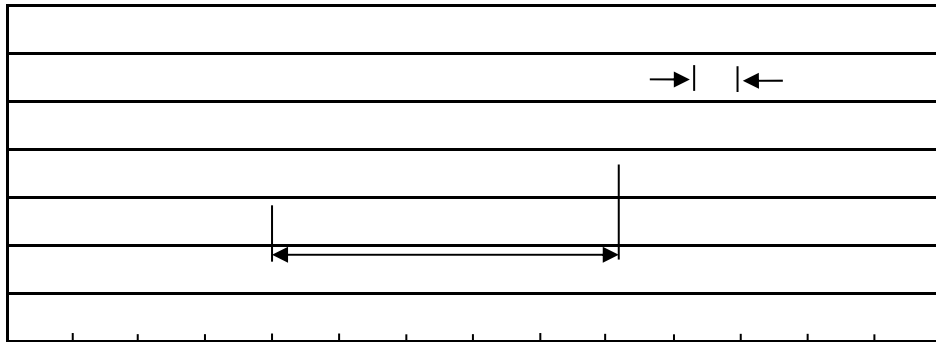
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Identify

Q: Automobile halogen-free product Code

2A 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.

**/ 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 <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	180,000	7 x8	180x120x180	390x385x205

**/ Notices**