

/ Revised record

F	2017-4				
G	2019-11-1 1	2	V_{CBO} V_{CEO} V_{EBO} I_{CEO}		
H	2020-5-21	1			
A	2022-2-9	all	BR Q AEC-Q101 H Q $245\pm 5^{\circ}\text{C}$ $5\pm 0.5\text{sec}$ $255\pm 5^{\circ}\text{C}$ $5\pm 0.5\text{sec}$		

SOT-23

PNP

Silicon PNP transistor in a SOT-23 Plastic Package.

BRMMBT5551Q
High voltage, com

AEC-Q101

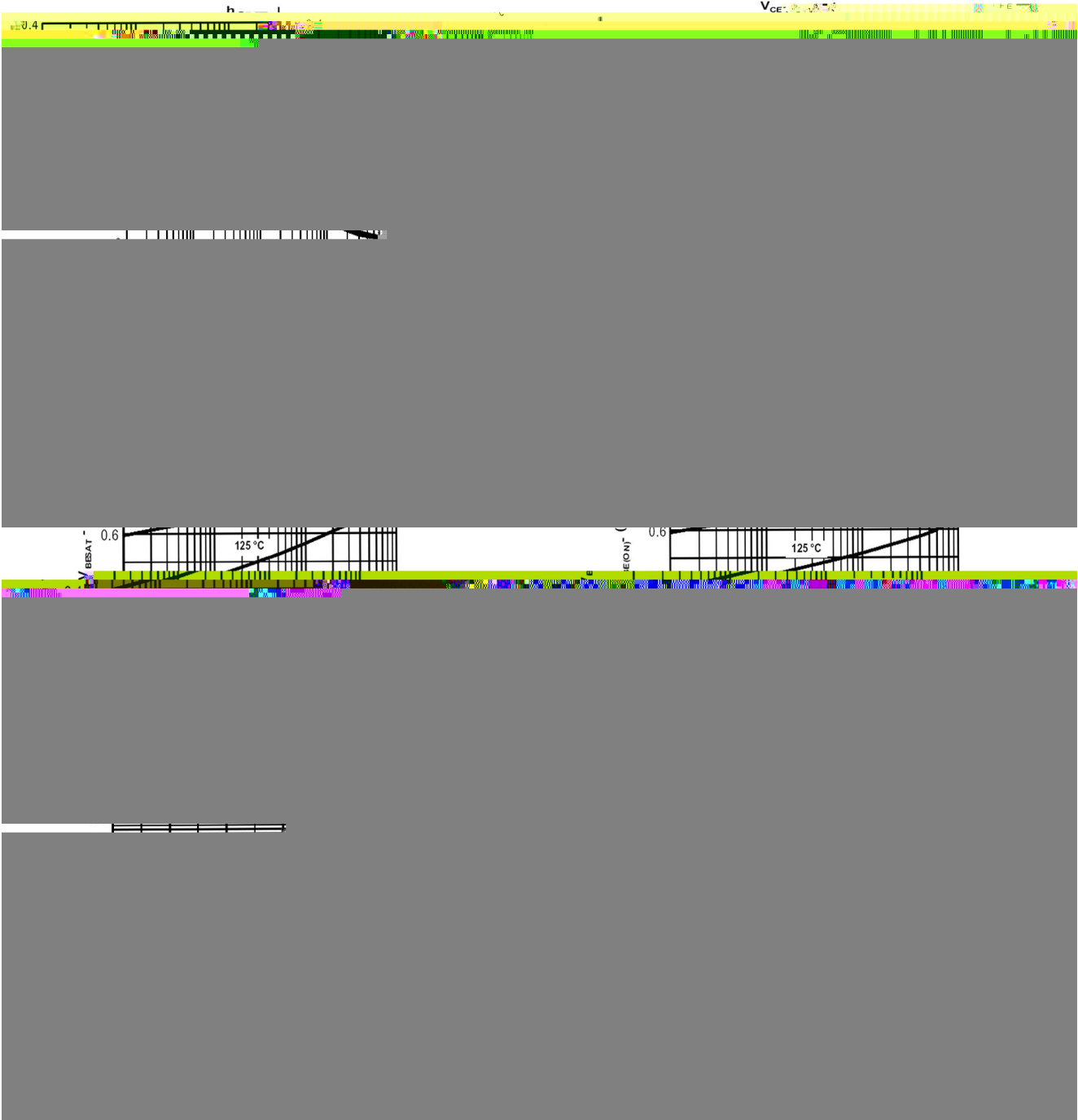
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Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-180	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current	I_C	-600	mA
Base Current	I_B	-300	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Voltage	V_{CBO}	$I_C=-100\mu A$ $I_E=0$	-180			V
Collector to Emitter Voltage	V_{CEO}	$I_C=-500\mu A$ $I_B=0$	-160			V
Emitter to Base Voltage	V_{EBO}	$I_E=-100\mu A$ $I_C=0$	-6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-180V$ $I_E=0$			-0.1	μA
Collector Cut-Off Current	I_{CEO}	$V_{CE}=-160V$ $I_B=0$			-5.0	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-6.0V$ $I_C=0$			-0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-5.0V$ $I_C=-10mA$	50	200	400	
	$h_{FE(2)}$	$V_{CE}=-5.0V$ $I_C=-50mA$	20	70		
	$h_{FE(3)}$	$V_{CE}=-5.0V$ $I_C=-1.0mA$	40	180		
Collector-Emitter Saturation Voltage	$V_{CE(sat) (1)}$	$I_C=-10mA$ $I_B=-1.0mA$		-0.12	-0.4	V
	$V_{CE(sat) (2)}$	$I_C=-50mA$ $I_B=-5.0mA$		-0.5	-0.8	V
Base-Emitter Saturation Voltage	$V_{BE(sat) (1)}$	$I_C=-10mA$ $I_B=-1.0mA$		-0.75	-1.0	V
	$V_{BE(sat) (2)}$	$I_C=-50mA$ $I_B=-5.0mA$		-0.8	-1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=-5.0V$ $I_C=-10mA$		-0.7	-0.75	V
Transition Frequency	f_T	$V_{CE}=-10V$ $I_C=-10mA$	50	80		MHz

Collector Output Capacac

/ Electrical Characteristic Curve



/ Marking Instructions

Q

2L

A

 h_{FE}

Note:

Q: Automobile halogen-free product Code

2L Product Type Code

A h_{FE} Classifications Symbol Code

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

- 说明：
- Note:
- 1、预热温度 150 ~ 200℃，时间 60 ~ 120sec;

1.Preheating:150~200℃, Time:60~120sec.
- 2、峰值温度 255±5℃，时间持续为 5±0.5sec;

2.Peak Temp.:255±5℃, Duration:5±0.5sec.
- 3、焊接制程冷却速度为 2 ~ 10℃/sec.

3. Cooling Speed: 2~10℃/sec.

/ Resistance to Soldering Heat Test Conditions

温度：260±5℃ 时间：10±1 sec.

Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

mm³)

Outer Box 箱