/ Revised record

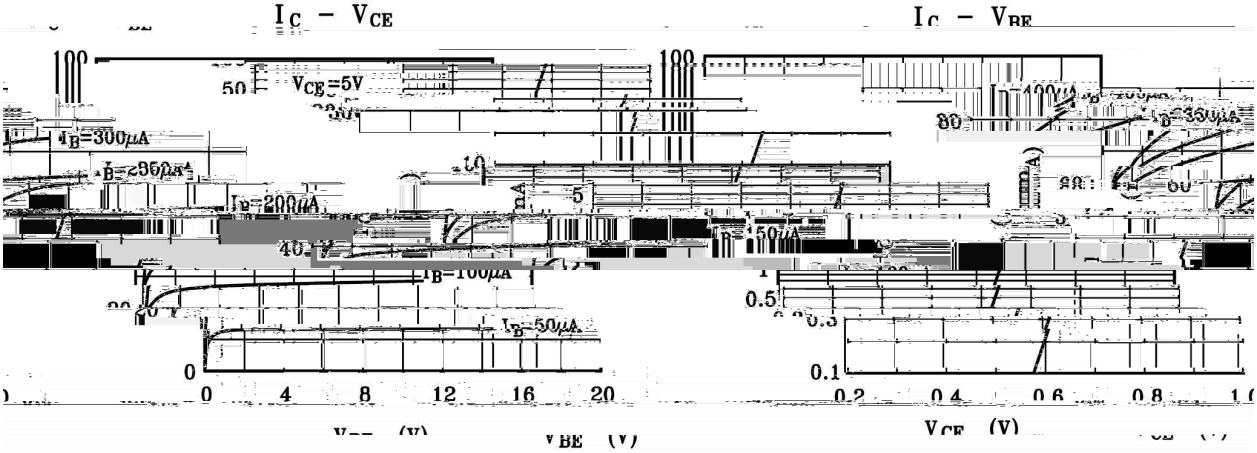
F	2017-4				
G	2020-5-18	1			
A	2022-2-21	all	BR Q AEC-Q101 H Q 245±5℃ 5±0.5sec 255±5℃ 5±0.5sec		

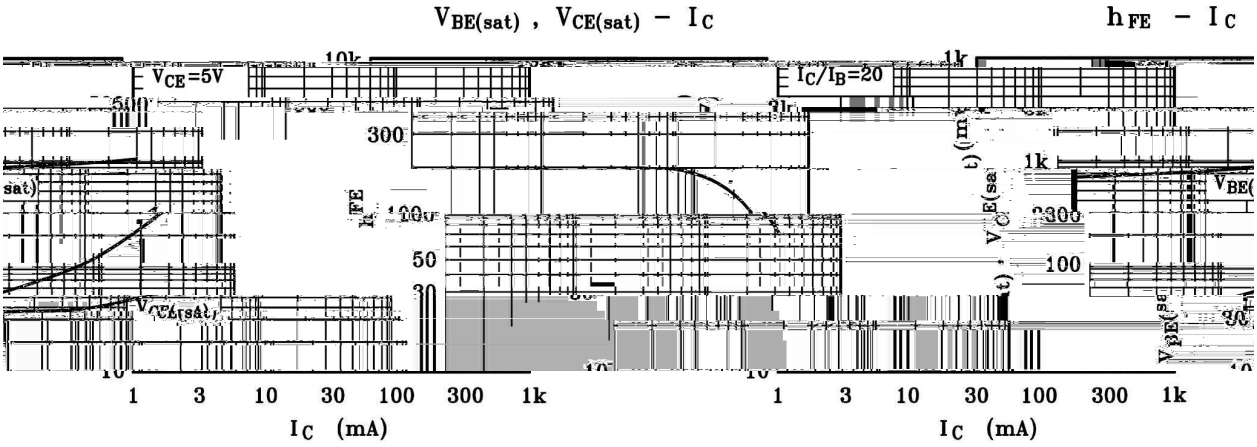
SOT-23	NPN	Silicon NPN transistor in a SOT-23

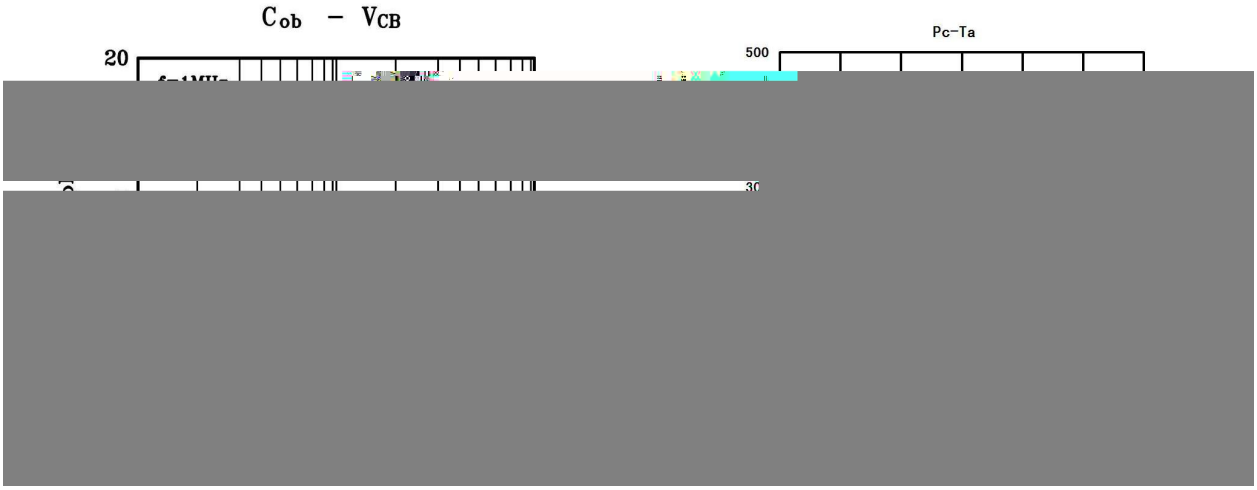
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	100	mA
Collector Power Dissipation	P_C	350	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V	I_E=0			0.015	μA
DC Current Gain	h_{FE}	V_{CE}=5.0V	I_C=2.0mA	110		800	
Collector to Emitter Saturation Voltage	$V_{CE(sat)1}$	I_C=10mA	I_B=0.5mA		0.09	0.25	V
	$V_{CE(sat)2}$	I_C=100mA	I_B=5.0mA		0.2	0.6	V
Base to Emitter Saturation Voltage	$V_{BE(sat)1}$	I_C=10mA	I_B=0.5mA		0.7		V
	$V_{BE(sat)2}$	I_C=100mA	I_B=5.0mA		0.9		V
Base to Emitter Voltage	$V_{BE(on)1}$	V_{CE}=5.0V	I_C=2.0mA	0.58		0.7	V
	$V_{BE(on)2}$	V_{CE}=5.0V	I_C=10mA				

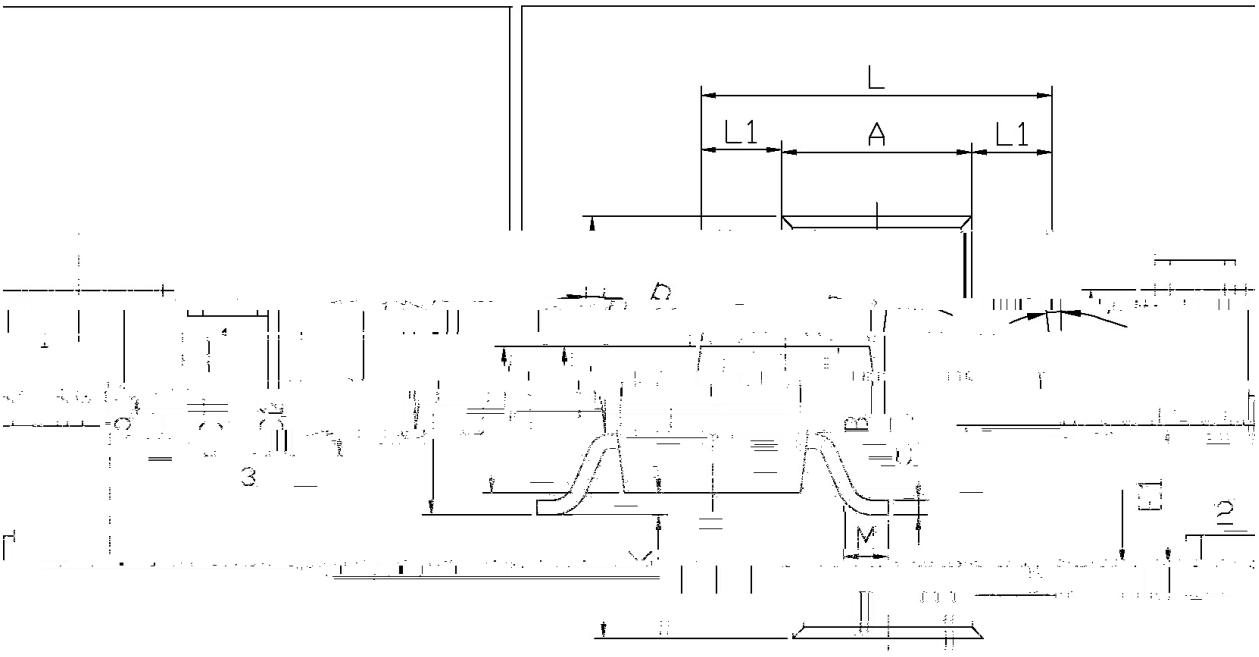
/ Electrical Characteristic Curve





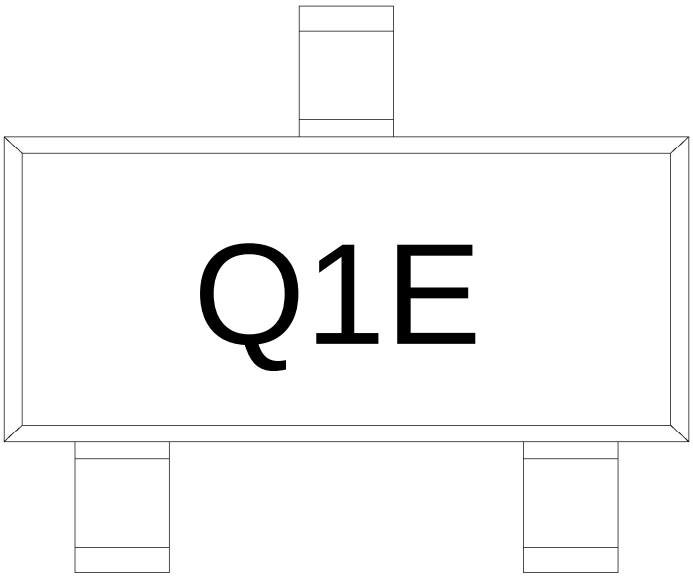


/ Package Dimensions



Symbol	Dimensions In Millmeters		Symbol	Dimensions In Millmeters	
	Min	Max		Min	Max
B	2.70	3.10	K	0°	0.10
E	1.70	2.10	M	0.20MIN	
E1	1.85	1.95	P	7°	
b	0.35	0.55			

/ Marking Instructions



Q

1E

Note:

Q: Automobile halogen-free product Code

1E: Product Type Code

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

说明：

1、预热温度 150～200℃，时间 60～120sec;

2、峰值温度 255±5℃，时间持续为 5±0.5sec;

3、焊接制程冷却速度为 2～10℃/sec.

Note:

1.Preheating:150~200℃, Time:60~120sec.

2.Peak Temp.:255±5℃, Duration:5±0.5sec.

3. Cooling Speed: 2~10℃/sec.

/ Resistance to Soldering Heat Test Conditions

温度：260±5℃ 热

5
R