

BR3CG5350TAQ
Rev.A Jan.-2023



/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CB0}	-50	V
Collector to Emitter Voltage	V _{CEO}	-50	V
Emitter to Base Voltage	V _{EBO}	-5	V
Collector Current - Continuous	I _C	-3	A
Peak collector current	I _{CM}	-5	A
Collector Base - Continuous	I _B	-0.5	A
Total power dissipation()	P _{tot} ()	550	mW
Junction Temperature	T _j	150	
Storage Temperature Range	T _{stg}	-65 150	

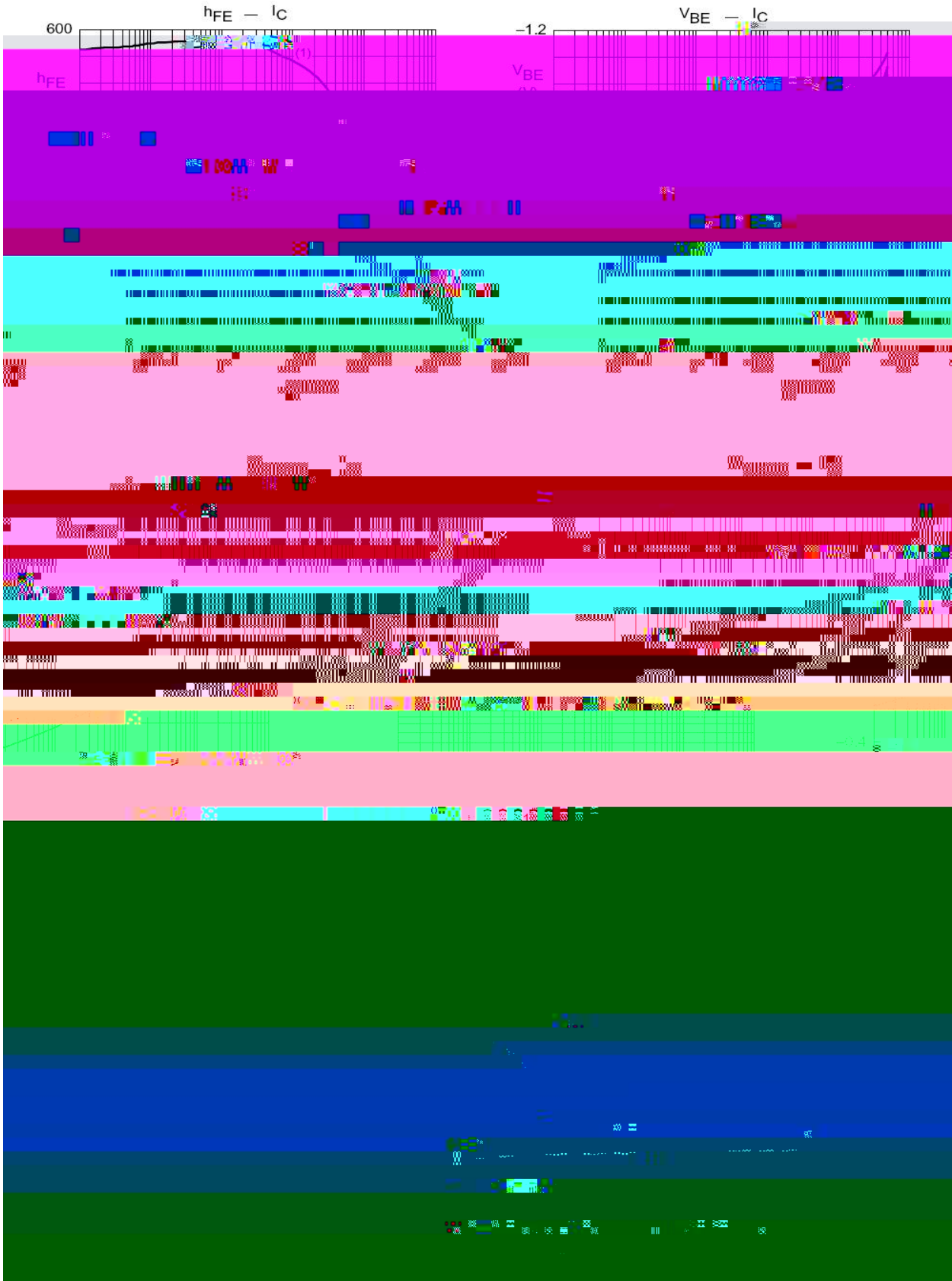
/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I _{CBO}	V _{CB} =-50V I _E =0			-100	nA
Collector Cut-Off Current	I _{CBO}	V _{CB} =-50V I _E =0 T _j =150			-50	μA
Collector cut-off current	I _{CES}	V _{CE} =-50V V _{BE} =0			-100	nA
Emitter Base Cut-Off Current	I _{EBO}	V _{EB} =-5.0V I _C =0			-100	nA
DC Current Gain	h _{FE(1)}	V _{CE} =-2.0V I _C =-0.1A	200			
	h _{FE(2)}	V _{CE} =-2.0V I _C =-0.5A	200			
	h _{FE(3)*}	V _{CE} =-2.0V I _C =-1.0A	200		450	
	h _{FE(4)*}	V _{CE} =-2.0V I _C =-2.0A	130			
	h _{FE(5)*}	V _{CE} =-2.0V I _C =-3.0A	80			
Collector to Emitter Saturation Voltage	V _{CE(sat) (1)}	I _C =-0.5A I _B =-50mA			-90	mV
	V _{CE(sat) (2)}	I _C =-2.0A I _B =-100mA			-320	mV
Equivalent on-resistance	R _{CE(sat)*}	I _C =-2.0A I _B =-200mA		90	135	m
Base to Emitter Saturation Voltage	V _{BE(sat)(1)}	I _C =-2.0A I _B =-100mA			-1.1	V
	V _{BE(sat)(2)*}	I _C =-3.0A I _B =-300mA			-1.2	V
Base-emitter turn-on voltage	V _{BE(ON)}	V _{CE} =-2.0V I _C =-1.0A			-1.1	V
Transition Frequency	f _T	V _{CE} =-5.0V I _C =100mA f=100MHz	100			MHz
Collector capacitance	C _C	V _{CB} =-10V I _E =0 f=1.0MHz			35	pF

* 300μs, δ 2.0%

*pulse test: pulse width 300μs, δ 2.0%.

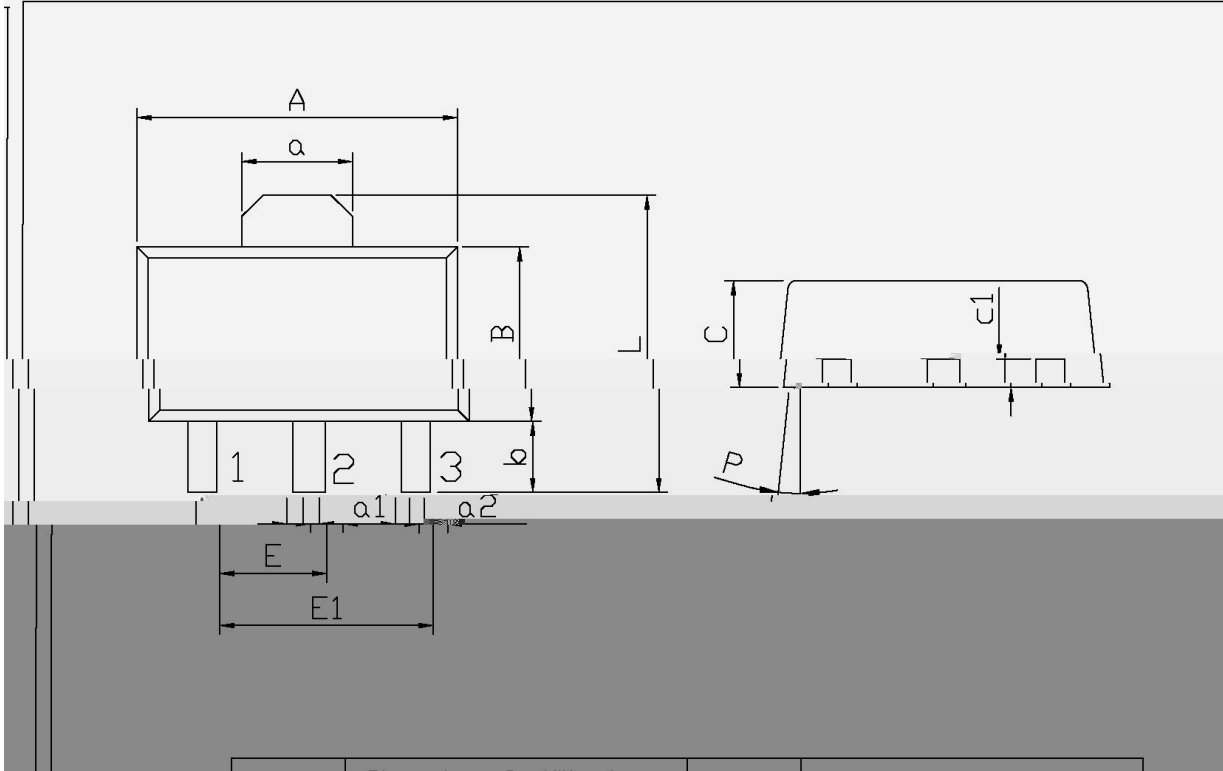
/ Electrical Characteristic Curve



/ Package Dimensions

SOT-89

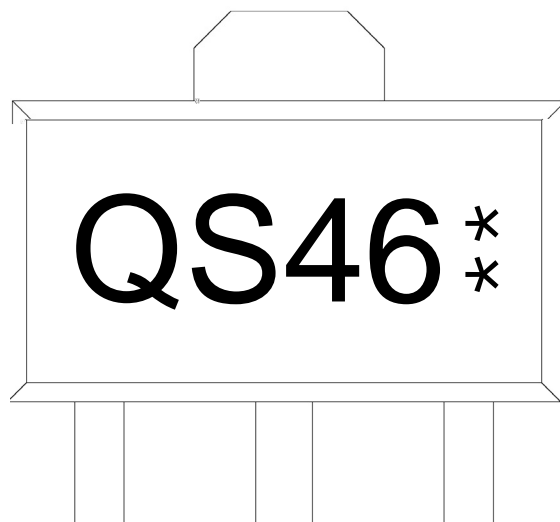
单位: mm



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
A	4.4	4.7	a1	0.35	0.56
a	0.7	0.8	a2	0.35	0.56
B	0.8	1.0	C	0.15	0.25
C	0.15	0.25	D	0.1	0.15
E	0.5	0.6	E1	0.5	0.6
E1	0.5	0.6	L	1.6	1.8
L	1.6	1.8	P	0.5	0.7
P	0.5	0.7			



/ Marking Instructions



Q

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Note:

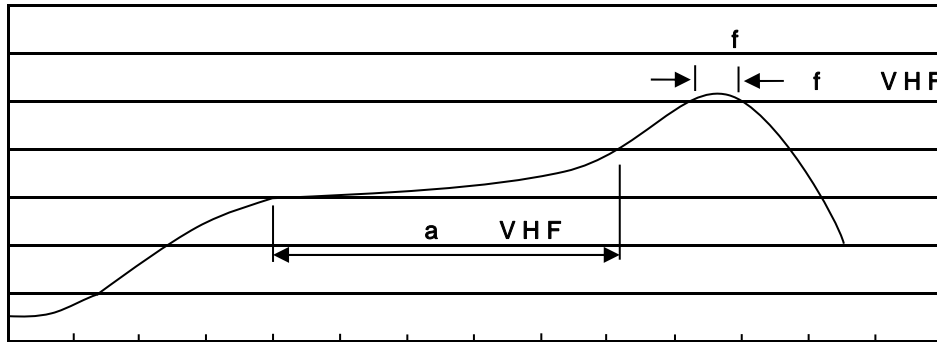
Q: Automobile halogen-free product Code

S46: Product Type

** : Lot No. Code, code change with Lot No

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7HP SHUDW XUH



7LPH VHF

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Note:

- 1. Preheating: 150~200 - , Time: 60~120sec.
- 2. Peak Temp.: 255 r5 - , Duration: 5 r0.5sec.
- 3. Cooling Speed: 2~10 - /sec.

ÂD /Câ p - »] / Resistance to Soldering Heat Test Conditions

"† y 260 r5 - ž • y 10 r1 sec. Temp.: 260±5 Time: 10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ~ E	Units ;>û !H					Dimension ;>û p . (unit Åmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box	Outer Boxç
SOT-89	1,000	7	7,000	6	42,000	7 s x12	180x120x180	390x385x205

„Đ y f / Notices