

BR2SC4672Q

Rev.A Dec.-2021

/ Descriptions

VRW0; < QSQ Silicon NPN transistor in a SOT-89 Plastic Package.

/ Features

H_i/ EU5VD4 : < : T DEF0T434

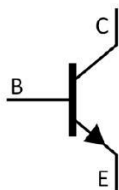
Low saturation voltage, excellent DC current gain characteristics, complements the BR2SA1797Q, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

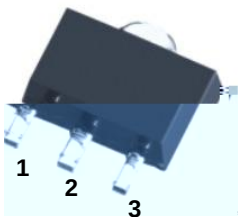
H_i I

Low frequency power amplifier applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

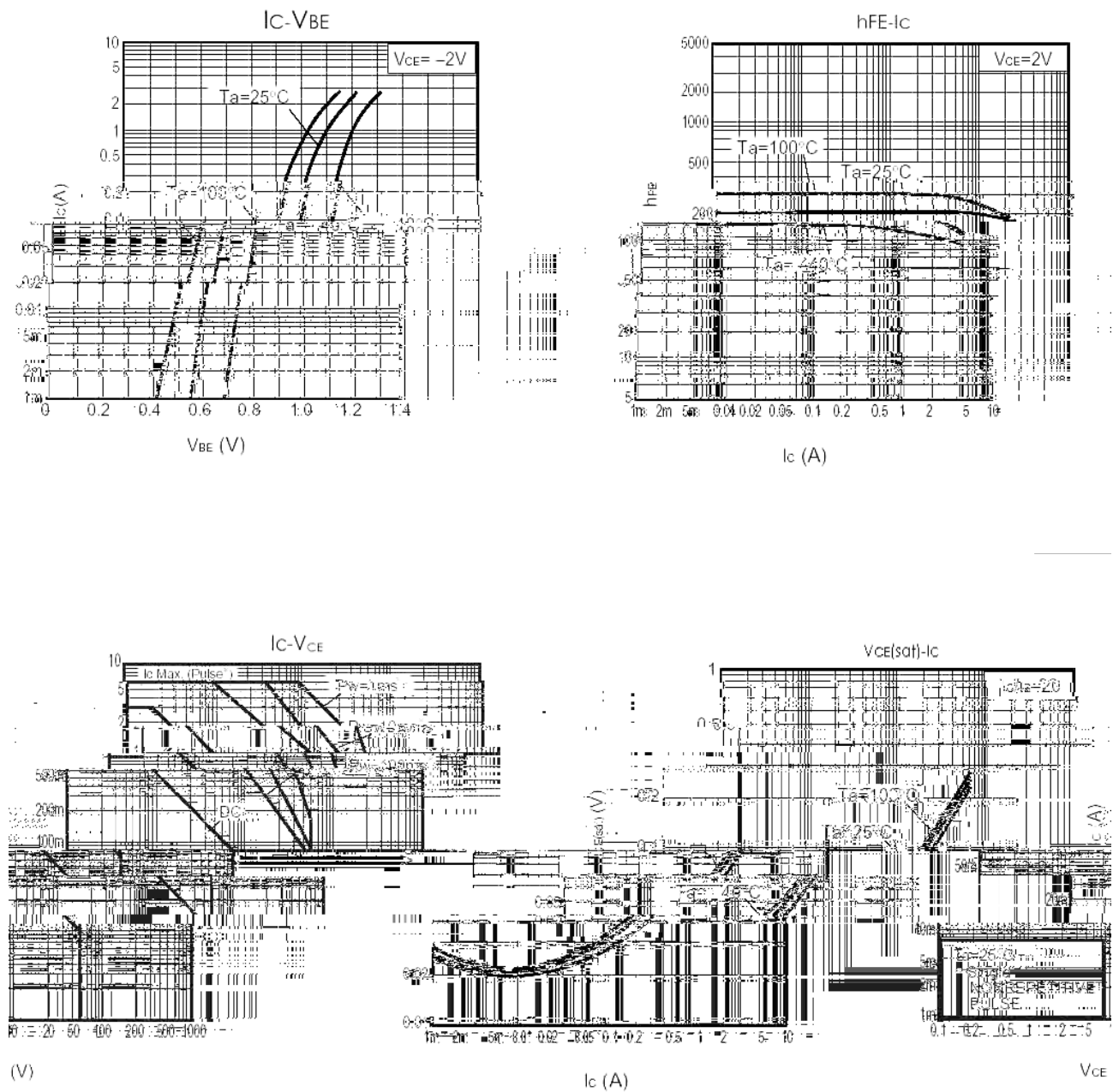
h _{FE} Classifications Symbol	P	Q
h _{FE} Range	82 180	120 270
Marking	QDKP * *	QDKQ * *

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	3.0	A
Collector Current – Continuous(Pulse)	I_{CP}	6.0	A
Collector Power Dissipation	P_C	0.5	W
Collector Power Dissipation*	$*P_C$	2.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

* τ 73×73×31:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=50\mu A$	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0mA$	50			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E=50\mu A$	6.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=60V$			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2.0V$ $I_C=500mA$	82		270	
	$h_{FE(2)}$	$V_{CE}=2.0V$ $I_C=1.5A$	45			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.0A$ $I_B=50mA$		0.13	0.35	V
Transition Frequency	f_T	$V_{CE}=2.0V$ $I_C=0.5A$ $f=100MHz$				

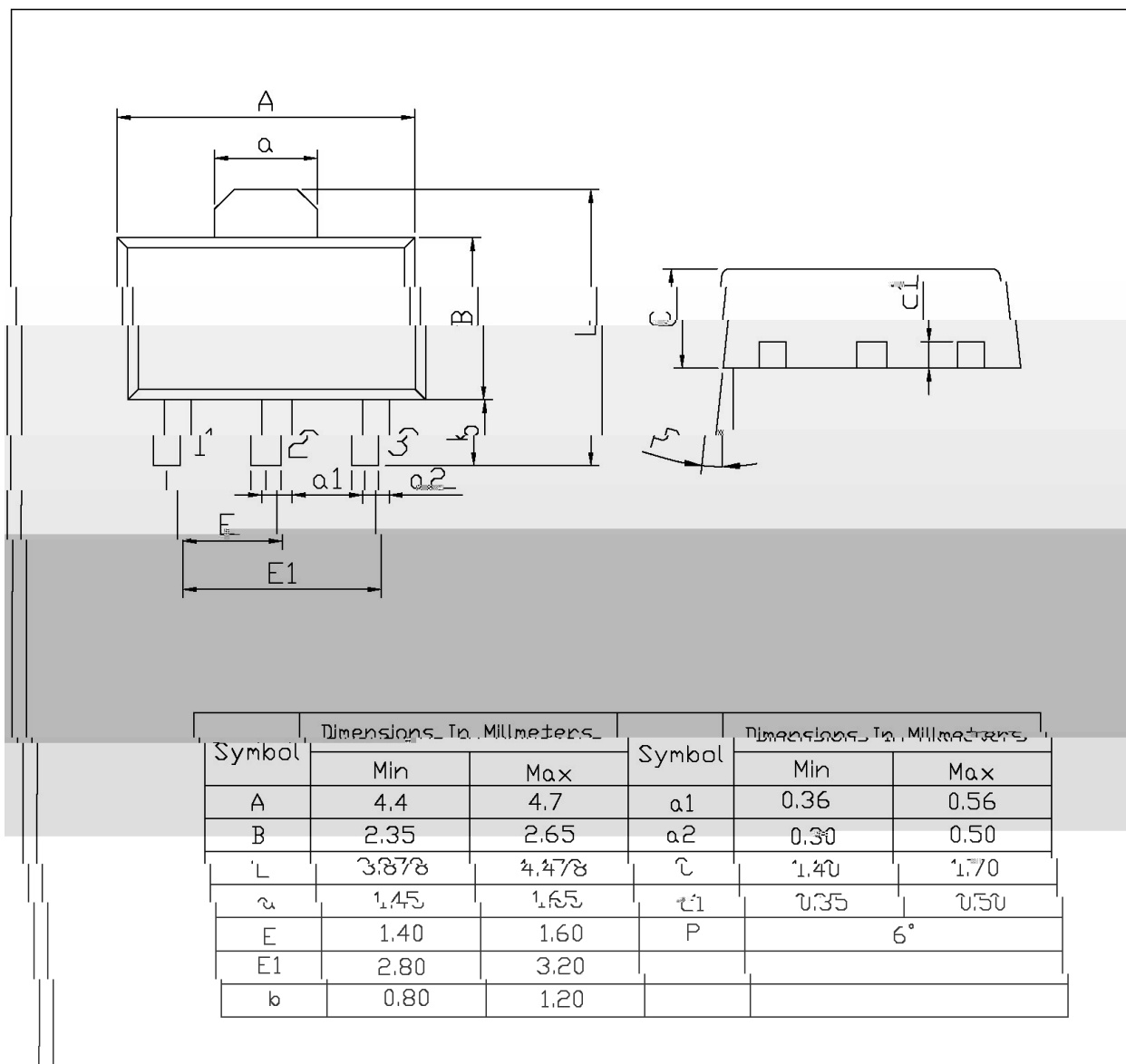
/ Electrical Characteristic Curve



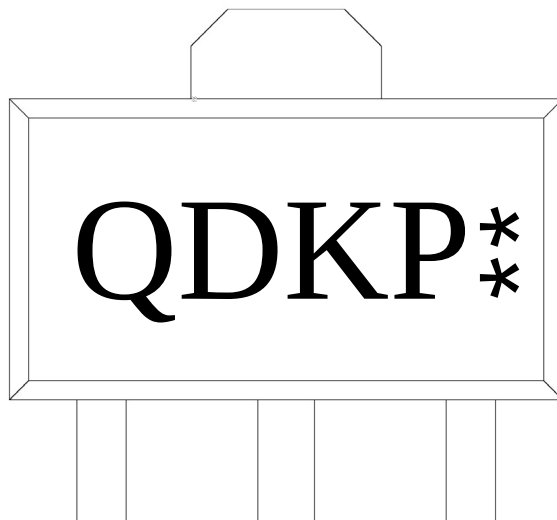
/ Package Dimensions

SOT-89

单位: mm



/ Marking Instructions



Q

DK

P

**

Note:

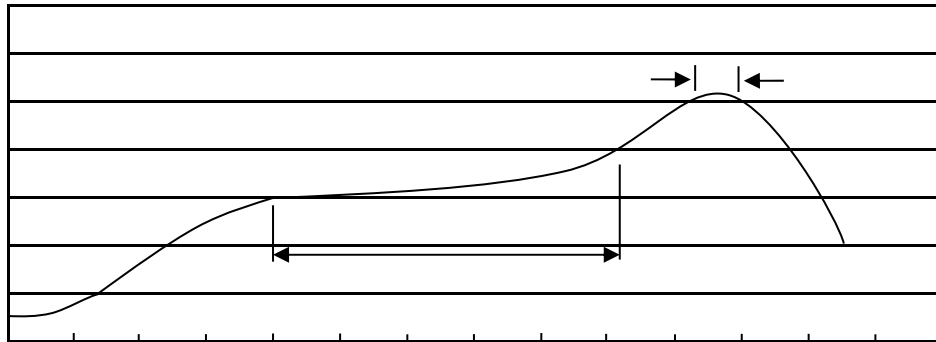
Q: Automobile halogen-free product Code

DK: Product Type.

P h_{FE} Classifications Symbol

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

() / **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 ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	6	42,000	7 ×12	180×120×180	390×385×205

/ **Notices**