

/ Descriptions

VRW5606 SQS Silicon PNP transistor in a SOT23-3 Plastic Package.

/ Features

/ EU5VG4: ; 5 P FT AEC-Q101

High breakdown, low $V_{CE(sat)}$, complements the BR2SD1782MCQ, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

/ Applications

Medium power amplifier applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit**/ Pinning**

PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h _{FE} Classifications Symbol	Q	R
h _{FE} Range	120~270	180~390
Marking	QAKQ	QAKR

Table 1 / Absolute Maximum Ratings(Ta=25 °C ;)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-80	V
Collector to Emitter Voltage	V_{CEO}	-80	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current - Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

Table 2 / Electrical Characteristics(Ta=25 °C ;)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C = -50 \mu A$	-80			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C = -2mA$	-80			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_E = -50 \mu A$	-5			V
Collector Base Cut-Off Current	I_{CBO}	$V_{CB} = -50V$ $I_E = 0$			-0.5	μA
Collector Emitter Cut-Off Current	I_{CEO}	$V_{CE} = -65V$ $I_B = 0$			-5	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB} = -4.0V$ $I_C = 0$			-0.5	μA
DC Current Gain	h_{FE}	$V_{CE} = -3.0V$ $I_C = -100mA$	120		390	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500mA$ $I_B = -50mA$			-0.5	V
Transition Frequency	f_T	$I_C = -50mA$ $f = 100MHz$ $V_{CE} = -10V$		180		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V$ $I_E = 0$ $f = 1.0MHz$		11		pF

Ô ? d • Ž ¢ / Electrical Characteristic Curve

Ø □ =) ¢ / Package Dimensions

QAKR

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Note:

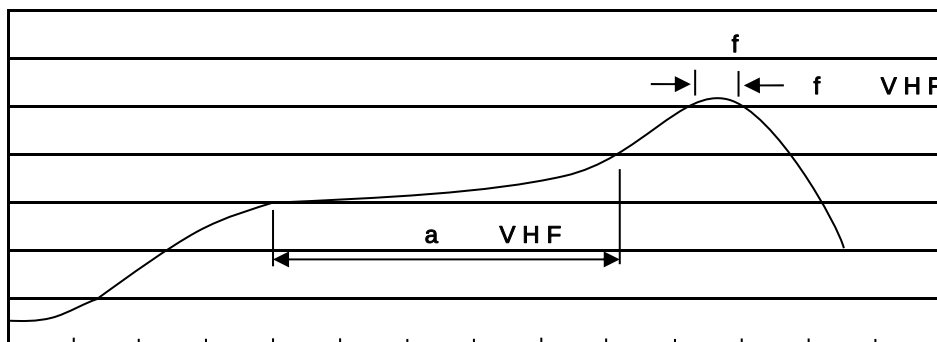
Q: Automobile halogen-free product Code

AK: Product Type Code

R: h_{FE} Classifications Symbol Code

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7HPSHUDWUHXH



7LPH VHF

$a \cdot y$

Note:

- 10• $\ddot{A} \frac{1}{2} \text{ " } \ddot{t}$ 150 $\frac{1}{2}$ 200 - k ž • 60 $\frac{1}{2}$ 120sec; 1.Preheating:150~200 - , Time:60~120sec.
- 20• $Q \succ \text{ " } \ddot{t}$ 255 r5 - k ž • 4 $\ddot{O}$ 5 r0.5sec; 2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.
- 30• $D \text{ N } \ddot{o} \text{ i } \ddot{O} \text{ 0 , } \ddot{t}$ 2 $\frac{1}{2}$ 10 - /sec. 3. Cooling Speed: 2~10 - /sec.

ĀD /Cā p⁻ »] / Resistance to Soldering Heat Test Conditions

" t y 260 r5 - ž • y 10 r1 sec. Temp.:260 r5 - Time:10 r1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>ŭ ~ E	Units ;>ŭ H					Dimension ;>ŭ p . (unit /mm ³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box	Outer Box
SOT23-3	3,000	10	30,000	4	120,000	7 s ×8	210×205×205	445×230×435

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