BRDTC123YKAQ

Rev.A Mar.-2025

DATA SHEET

˜Yت / Descriptions

VRW056 Ṃ Ṃ Ł QSQ ˜Ǫ È s ǁ ˀ Vlolf r q QSQ Gl j lwdo wudqvlvw r u lq d VRW056 Sodvwlf Sdfnd j h1

◕ È / Features

ŋ Ł ə̈ ɹ ɔ ʗ ı ʎ ɒ ɹ ʿ ɸ ɰ ı ˚ Ṉ ƒ ʈ ˭ ˙ ڇ ˫ ˥ ı ˥ ˦ DHF0T434 ‰ ´ ɔ ˡ ˎ ớ ʅ ∂ ı ŋ̀ ƒ β

With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing process, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

ʊ ʒ / Applications

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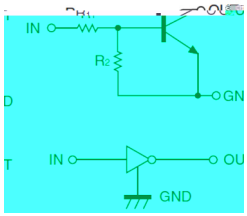
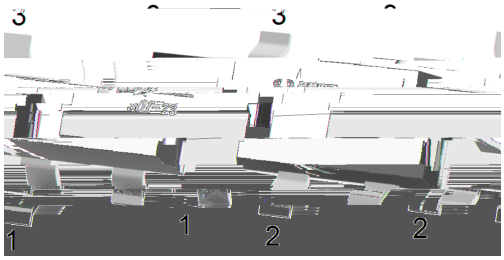
Switching applications, interface circuit and driver circuit applications, Meet the stringent requirements of automotive applications.

Ŋ ɸ ̃ ǭ ˝ ɛ / Equivalent Circuit



ã ɹ ʊ̃ / Pinning



PIN 1 χ IN PIN 2 χ GND PIN 3 χ OUT

ǭ ʐ z ł ̣ ʜ ɔ̇ / hFE Classifications & Marking

Marking	Q62

ώ ̈ Ξ ̊Ą / Absolute Maximum Ratings(Ta=25 ɹ)

v ̈Ω Parameter	ϒ N Symbol	̈Ω Ö Rating	D Ꮋ Unit
Supply Voltage	V_{CC}	50	V
Input Voltage	V_{IN}	12	V
		-5	V
Output Current	I_O	100	mA
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	-55 150	
Storage Temperature Range	T_{stg}	-55 150	

ɜ Λ Ξ ̊Ą / Electrical Characteristics(Ta=25 ɹ)

v ̈Ω Parameter	ϒ N Symbol	⊪ ː ϯ ϯ Test Conditions	ώ ṇ Ö Min	Ɛ ʒ Ö Typ	ώ ᶻ Ö Max	D Ꮋ Unit
Input Voltage	$V_{I(off)}$	V_{CC}=5.0V I_O=100μA	0.3			V
Input Voltage	$V_{I(on)}$	V_O=0.3V I_O=20mA			3	V
Output Voltage	$V_{O(on)}$	I_O =10mA I_I=0.5mA		0.1	0.3	V
Input Current	I_I	V_I=5.0V			3.8	mA
Output Cut-off Current	$I_{O(off)}$	V_{CC}=50V V_I=0V			0.5	μA
DC Current Gain	G_I	V_O=5.0V I_O=10mA	33			
Resistance1	R_1		1.54	2.2	2.86	KΩ
Resistance Ratio	R_2/R_1		3.6	4.5	5.5	
Transition Frequency	f_T	V_O=10V I_O=5.0mA f=100MHz		250		MHz

⁝ ƎÃ´E ⅵ ƒ / Electrical Characteristic Curve

Ø ¤ =) ¢ / Package Dimensions

, M y ƒ / Marking Instructions

Q62

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62 y º Z W A

Note:

Q: Automobile halogen-free product Code

62 y Product Type Code

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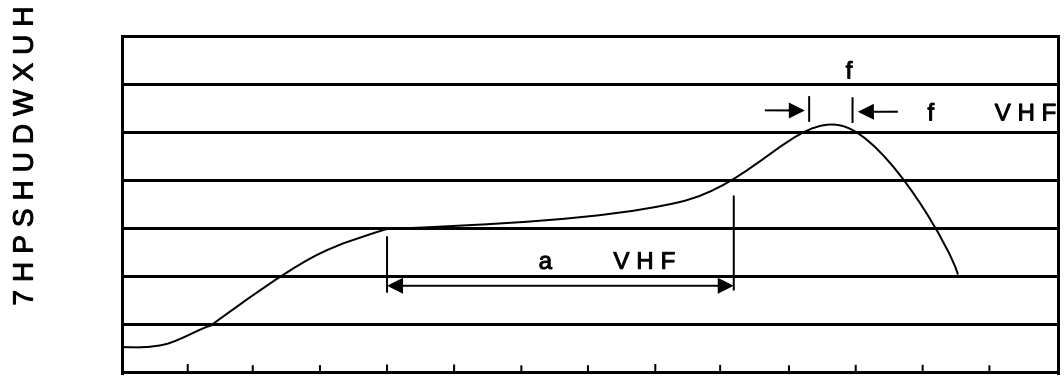

7LPH VHF

ª ¢ y Note:

1o• Ä ½ “ † 150 ½200 - k ž • 60 ½120sec; 1.Preheating:150~200 - , Time:60~120sec.

2o• Q › “ † 255 r5 - k ž • 4 Ò 5 r0.5sec; 2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

3o•D N ò i Ò 0 , † 2 ½10 - /sec. 3. Cooling Speed: 2~10 - /sec.

ÂD /Cã 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 Æmm³)		
	Units/Reel / --	Reels/Inner Box -- /-	Units/Inner Box /-	Inner Boxes/Outer Box - /1ç	Units/Outer Box /1ç	Reel	Inner Box×	Outer Box1ç
SOT-23	3,000	10	30,000	6	180,000	7 T×8	180×120×180	390×385×205

„ Ð y ƒ / Notices