

BRDTC123YKAQ

Rev.A Mar.-2025

/ Descriptions

J F K\$) * E GE J`cZf e`E GE ; ^`kXcki Xej`j kf i`e`X J F K\$) * `G&Xj kZ`GXZbX^`%

/ Features

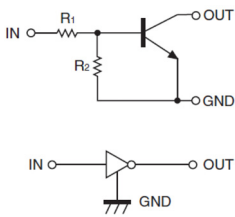
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With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing process, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

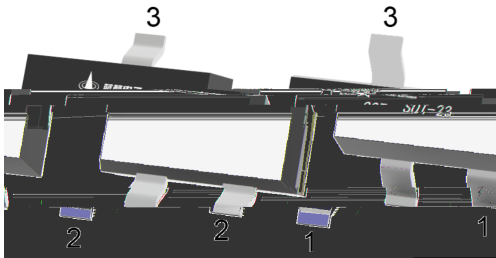
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN 1 IN PIN 2 GND PIN 3 OUT

/ hFE Classifications & Marking

Marking	Q62
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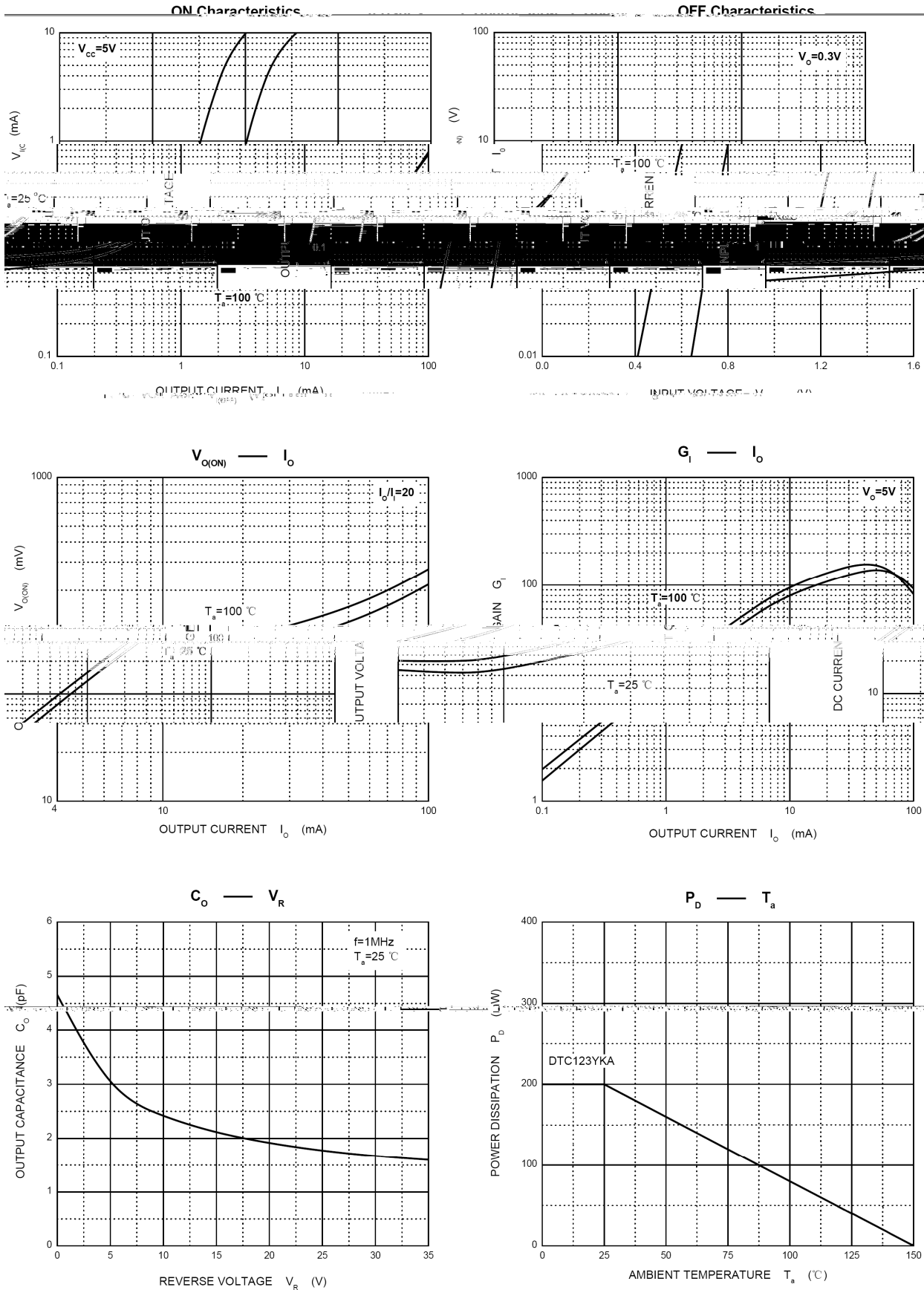
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	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	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	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	K
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

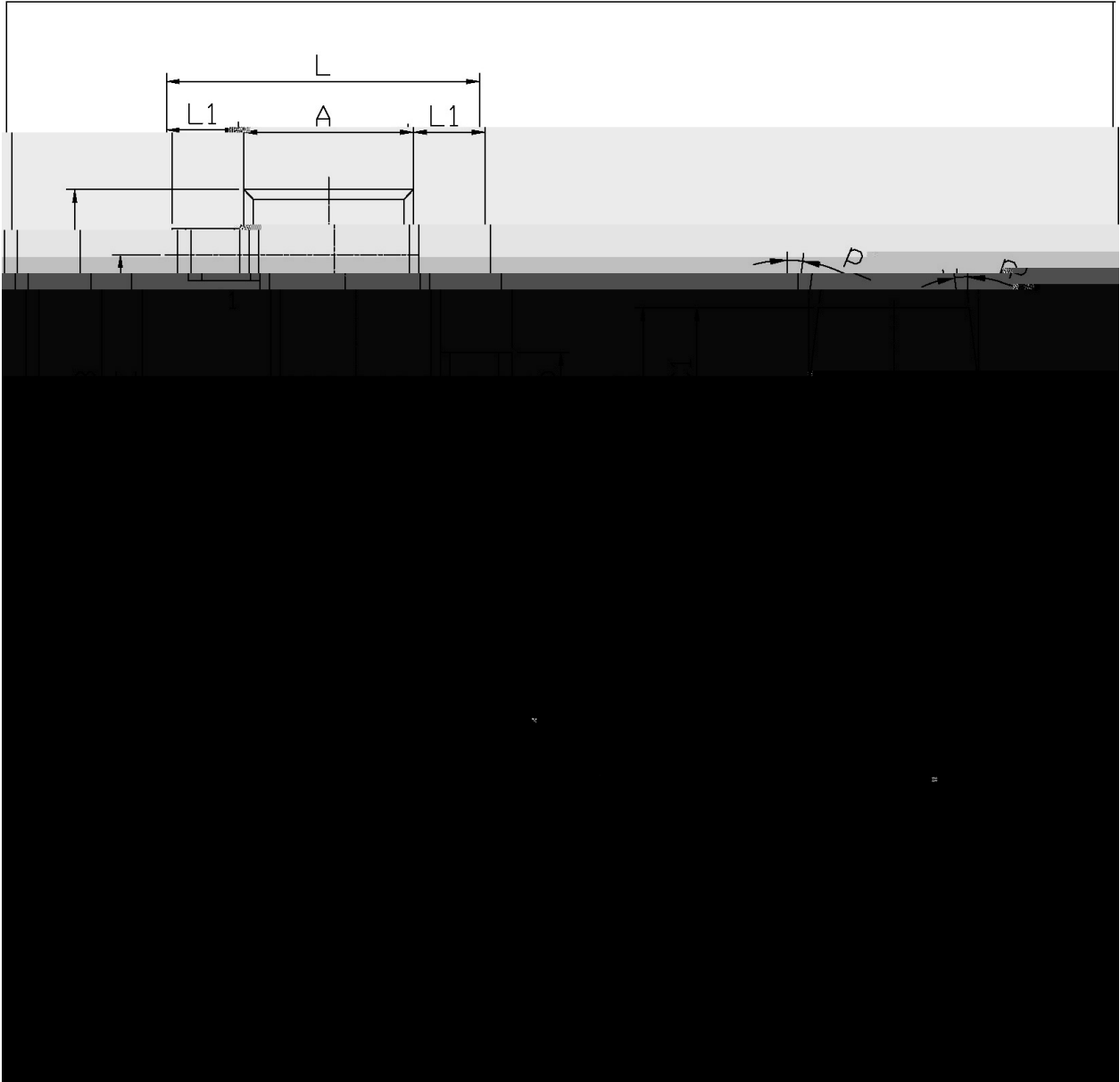
/ Electrical Characteristic Curve



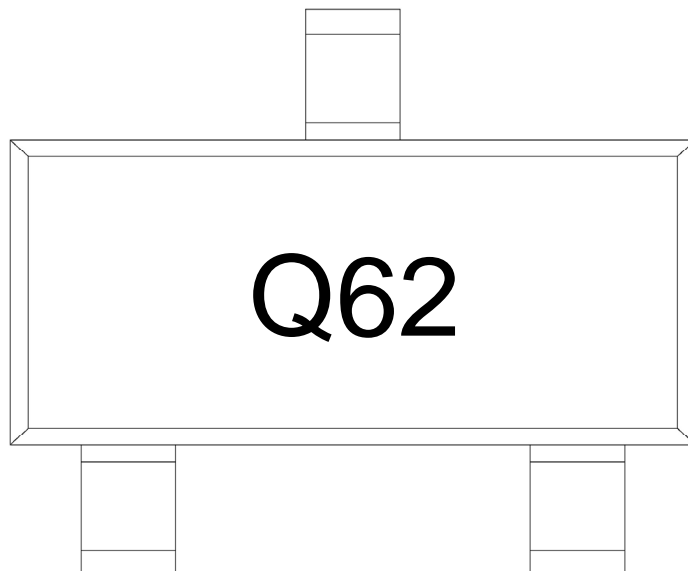
/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions



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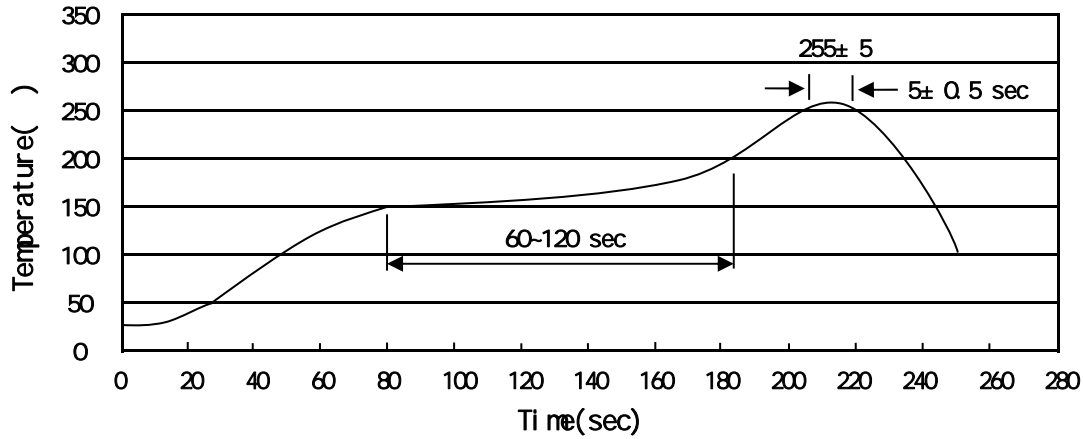
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Note:

Q: Automobile halogen-free product Code

62 Product Type Code

() / 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 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-23	3,000	10	30,000	6	180,000	7 x8	180x120x180	390x385x205

/ Notices