

BRCO7333TAQ

Rev.B Mar.-2023

DATA SHEET

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Working Voltage	V _{IN}	-0.3~+20	V
Thermal Resistance	R _{JA}	200	/W
Power Consumption	P _W	500	mW
Storage Temperature	T _{STG}	-50~+125	
Working Temperature	T _A	-40~+85	

Notes: If the device operating conditions over the maximum rating of the above-mentioned conditions, may cause permanent damage to the device. The above parameters is only part of the operating conditions the maximum, we do not recommend the device running outside the scope of this specification. If the device to work long hours under the condition of absolute maximum limit, its stability may be affected.

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
The Output Voltage	V _{OUT}	V _{IN} =5.3V, I _{OUT} =10mA	3.234	3.30	3.366	V
The Output Current	I _{OUT}	V _{IN} =5.3V	300			mA
Load Regulation	V _{OUT}	V _{IN} =5.3V 1mA I _{OUT} 300mA		37	100	mV
Low Dropout	V _{DIF}	I _{OUT} =100mA, V _{OUT} =2%		195	300	mV
Static Power	I _{SS}	V _{IN} =5.3V		1.5	3.0	μA
Linear Regulation	$\frac{V_{OUT}-V_{OUT}^*}{V_{IN}}$	4.3V V _{IN} 20V I _{OUT} =1mA			0.2	%/V
The Input Voltage	V _{IN}				20	V
Temperature Coefficient	$\frac{V_{OUT}}{T_A \cdot V_{OUT}}$	V _{IN} =5.3V, I _{OUT} =10mA -40 T _A 85		100		ppm/

V_{IN}=5.3V

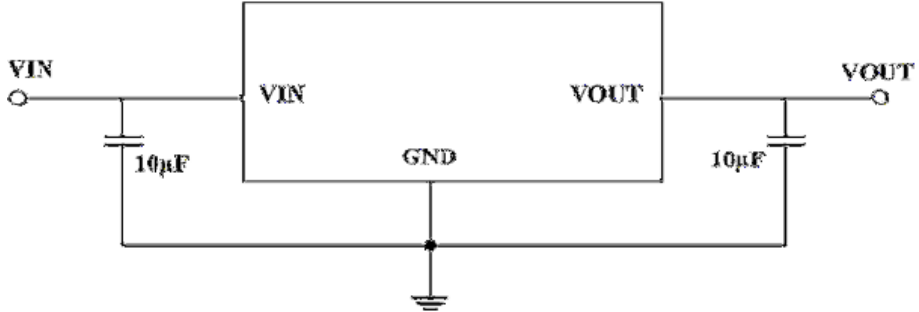
2%

V_{DIF}

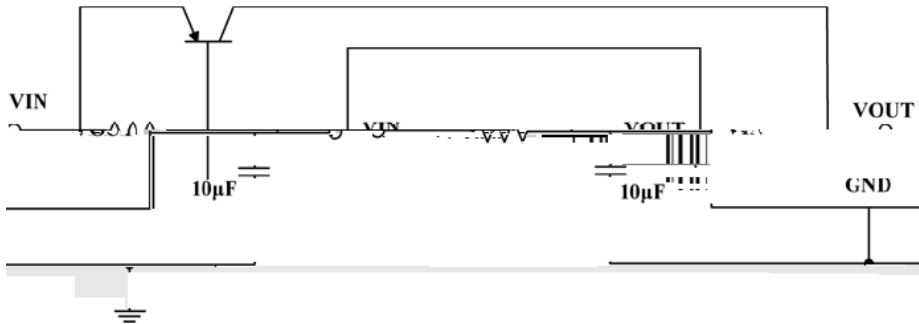
Note: V_{DIF} is defined as the input voltage minus the output voltage that produces a 2% change in the output voltage from the value at V_{IN}=5.3V with a fixed load.

/ Typical Application Circuit

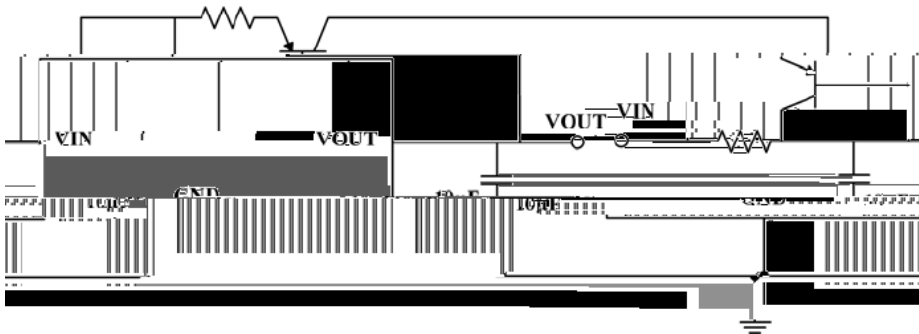
/ Basic Application



/ High Output Current Voltage Regulator

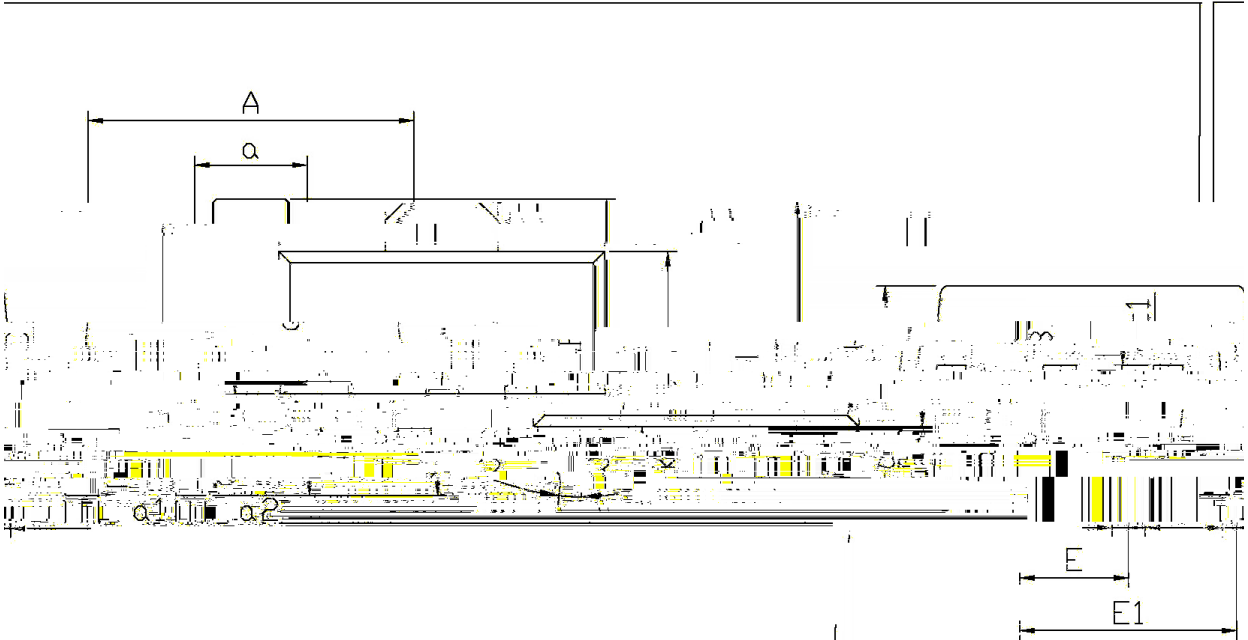
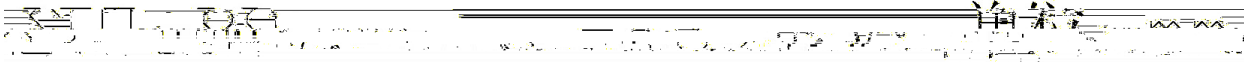


/ Short-Circuit Protection



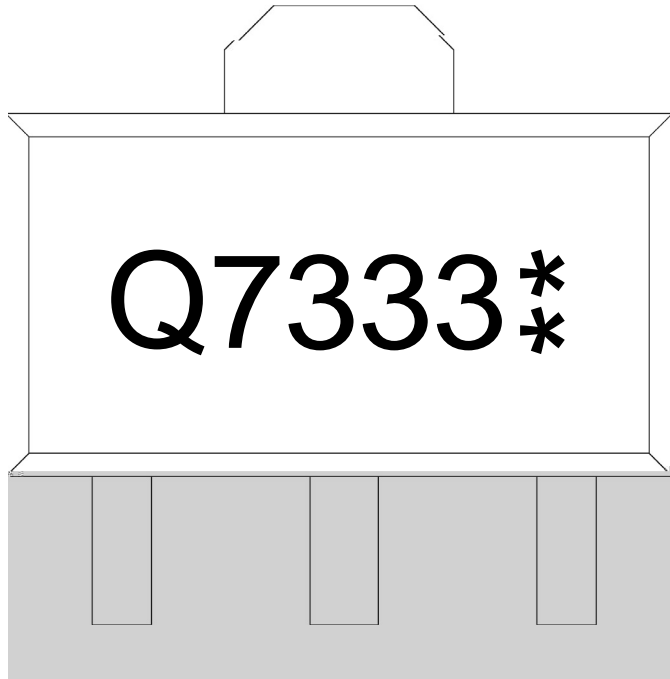
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/ Package Dimensions



Units: In Millimeters		Dimensions: In Millimeters		Dimensions: In Millimeters		Dimensions: In Millimeters	
Symbol	Min	Max	Symbol	Min	Max	Symbol	Min
A	4.4	4.7	a1	0.36		E	0.56

/ Marking Instructions



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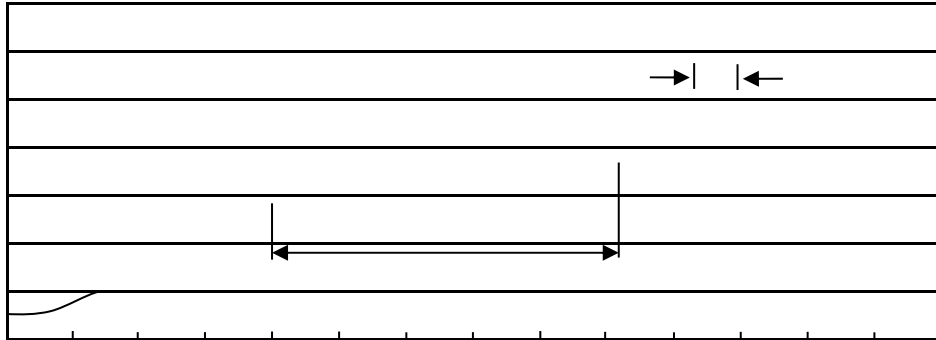
Note:

Q: Automobile halogen-free product Code

7333: Product Type

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

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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)		
	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