/ Descriptions

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Low dropout linear regulator in a SOT-89 Plastic Package .

/ Features

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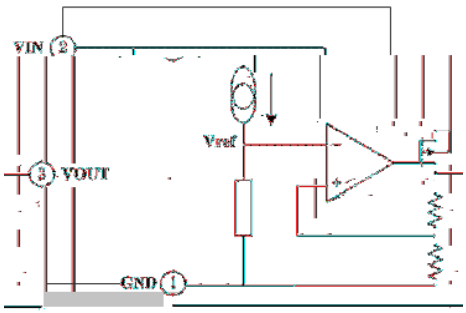
Low power consumption,Low voltage drop,Small temperature drift coefficient, Input voltage up to 24V,The static current 1.5ƤA,The output voltage accuracy=° 5 (, HF Product.

/ Applications

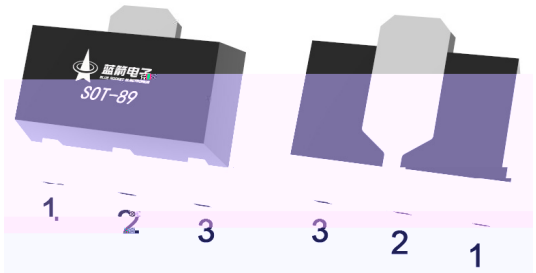
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For use in power equipment,Communication equipment,Audio and video equipment.

/ Equivalent Circuit



/ Pinning



PIN1 χ GND PIN 2 χ VIN PIN 3 χ VOUT

/ Marking

ð ᴍ ϒ ب ˝

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

v ̈Ω Parameter	↿ N Symbol	̈Ω Ë Rating	D Ɥ Unit
Working Voltage	V_{IN}	-0.3~26	V
Thermal Resistance	$R_{\theta JA}$	200	/W
Power Consumption	P_D	500	mW
Storage Temperature	T_{STG}	-50~+125	
Working Temperature	T_A	-40~+85	

├ χ Þ ' ʜ Ţ ЬΦ† Ţ ʌ ص i ك R °† Ţ ϣ ƶ ɨ ĥ Ë ı ˡ Ǐ Ḿ ʜ Ţ ę ă ⇔ Ψ ớ ̈Ω q i ك v ̈Ω ĸ Ĩ ЬΦ † Ţ ▯ Ⅱ ƶ Ë ı ă Ç j ấ ɲ ʜ Ţ ƥ Ǐ h … … Þ ᵘ ЬΦ Þ ' ʜ Ţ ڌ Ḥ ڑ Ṫ Ă ƥ ʌ Ḿ ϣ ƶ Ⅱ ں† Ţ ï ı Ʊ ५ ĥ ớ ˡ Ǐ h ᴘ ˙ ẽ φ

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.

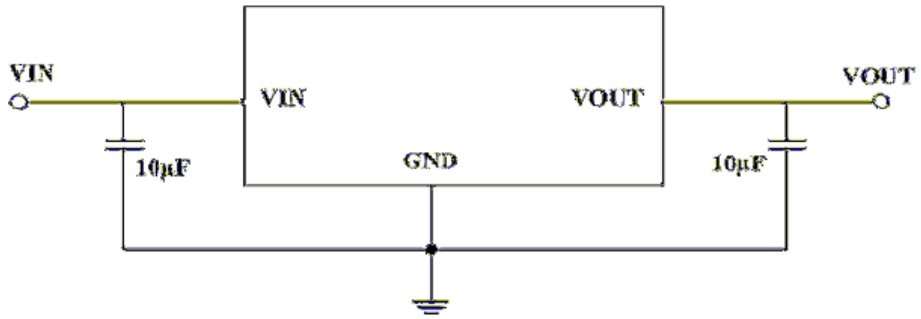
/ Electrical Characteristics(Ta=25)

v ̈Ω Parameter	↿ N Symbol	Ⅱ :† Ţ Test Conditions	ϣ ɳ Ë Min	Ɛ ʒ Ë Typ	ϣ ƶ Ë Max	D Ɥ Unit
The Output Voltage	V_{OUT}	V_{IN}=5.0V,I_{OUT}=10mA	2.94	3.00	3.06	V
The Output Current	I_{OUT}	V_{IN}=5.0V		150		mA
Load Regulation	V_{OUT}	V_{IN}=5.0V 1mA ≤ I_{OUT} ≤ 100mA		25	60	mV
Low Dropout	V_{DIF}	I_{OUT}=10mA, V_{OUT}=2%			100	mV
Static Power	I_{SS}	V_{IN}=5.0V		1.5	3.0	μA
Line Regulation	V_{OUT}/V_{OUT}* V_{IN}	5.0 ≤ V_{IN} ≤ 24V I_{OUT}=10mA			0.2	%/V
The Input Voltage	V_{IN}				24	V
Temperature Coefficient	V_{OUT}/ T_A*V_{OUT}	V_{IN}=5.0V,I_{OUT}=10mA -40 ≤ T_A ≤ 85		100		ppm/

├ χ Ę V_{IN}=5.0V ı ɖ ĥ ق ذ† Ţ ï Æ ڑ ɹ ɔ я ï ں 2% ı ٪ Ḥ ڑ ϶ ɔ я ⁼ ڑ ɹ ɔ я ▯ Ţ Ë ʜ Ḥ я Ţ Ë 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}=5.0V with a fixed load.

/ Typical Application Circuit



1. Ž ŕ ̀H ő ¸ Ṅ ɔ ķ ì ˙ VIN ⁼ VOUT ű ʁ گ ۼ

2 λ ɔ ت ɲ ሀ Æ ŕ ˜ ˀ ʁ ´ ű ɔ ت ⁼ ˍ ŕ ڑ ˛ ɔ ķ ESR ˡ ´ ű ˝A Ꝍ ڑ ˛ ˙ ş ḧ ļ ì ⁂ 2.2uF

ɔ ķ ʰ ı ò □ Æ ŕ ɔ ķ

3 λ ├ Ỳ ڑ ϡ ڑ ˛ ɔ я ⁼ ق ذ ɔ ╚ Æ ŕ ˀ ţ ı ३ d IC ɲ ሀ ı ă ʌ ˛ Ṃ Ł ы ᵽ ω ᵌ ı ă Ө

BRCO7530MT

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

ب ˝ χ

Note:

1 Ĺ ♬ □ ỷ 150 Ḱ 180 ł ı ̀H ژ 60 Ḱ