

BRC07530MT

Rev.B Jul.-2024

/ Descriptions

JF K\$/O

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

/ Features

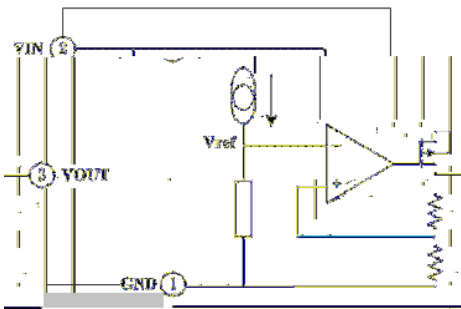
) +M (% 8 ..) fl

Low power consumption,Low voltage drop,Small temperature drift coefficient, Input voltage up to 24V,The static current 1.5 A,The output voltage accuracy1.) fl , HF Product.

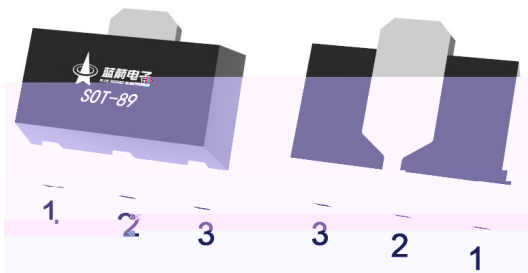
/ Applications

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

/ Equivalent Circuit



/ Pinning



PIN1 GND PIN 2 VIN PIN 3 VOUT

/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Working Voltage	V _{IN}	-0.3~26	V
Thermal Resistance	R _{JA}	200	/W
Power Consumption	P _D	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} =5.0V, 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	A
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/

V_{IN}=5.0V

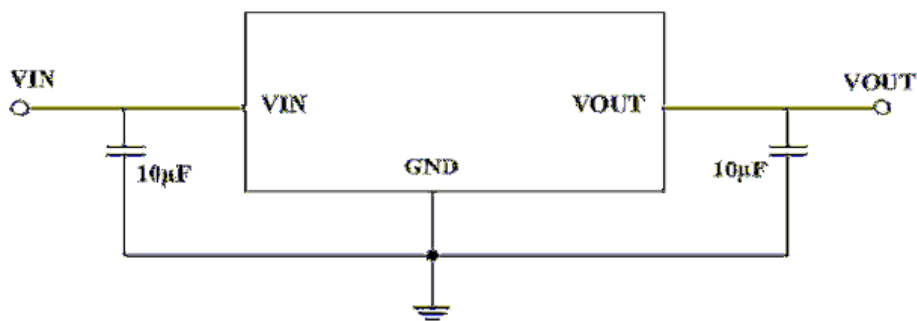
2%

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}=5.0V with a fixed load.

BRCO7530MT
Rev.B Jul.-2024

/ Typical Application Circuit



- | | | | | |
|----|-----|------|-----|-------|
| 1. | VIN | VOUT | | |
| 2. | | | ESR | 2.2uF |
| 3. | | | IC | |

BRCO7530MT

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

Note:

1 150 180 60