上海贝岭 SHANGHAI BELLING

BL8074G

800mA Ultra-Low Vin Low Dropout Voltage Linear Regulator

GENERAL DESCRIPTION

BL8074G series are a group of positive voltage output, high precise, and low power consumption voltage regulator. Voltages are selectable in 100mV steps within a range of 1.2V to 5.0V. It also can be customized on command.

BL8074G series have excellent load and line transient response and good temperature characteristics, which can assure the stability of chip and power system. And it uses trimming technique to guarantee output voltage accuracy within ±2%.

BL8074G series are available in SOT-89-3 package, which is lead (Pb)- free.

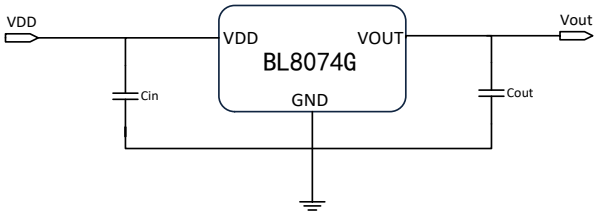
FEATURES

- Low Quiescent Current: 100uA (Typ)
- High PSRR: 65dB range to 1KHz
- Low Dropout:
  35mV@Iout=100mA, Vout=3.3V(Type)
  250mV@Iout=800mA, Vout=3.3V(Type)
- Maximum output current: 800mA
- Highly Accurate: ±2%
- Low temperature coefficient: ±100ppm/°C
- Output voltage range: 1.2V~5.0V
- Thermal shutdown
- Overcurrent protection

APPLICATIONS

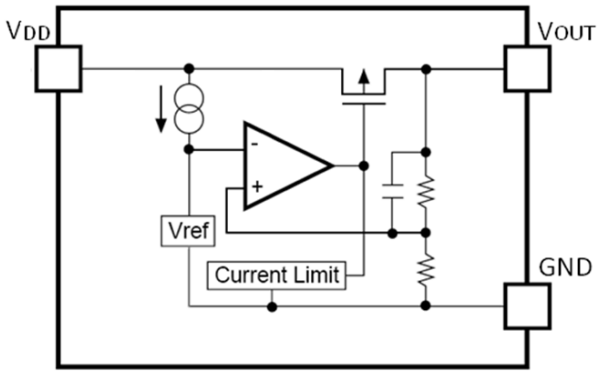
- Reference Voltage Source
- Battery Powered Equipment
- PC Peripherals
- Wireless Devices
- Instrumentation

TYPICAL APPLICATION



Note: *Input capacitor (C_{IN}=4.7uF) and output capacitor (C_{OUT}=4.7uF) are recommended in all application circuit.*

BLOCK DIAGRAM



ORDERING INFORMATION

BL8074G [1][2][3][4][5]

Code	Description
[1]	Temperature&Rohs: C:-40~85°C ,Pb Free Rohs Std.
[2]	Package type: C3:SOT-89-3
[3]	Packing type: TR:Tape&Reel (Standard)
[4]	Output voltage: e.g. 12=1.2V 18=1.8V 25=2.5V 33=3.3V 50=5.0V
[5]	Voltage accuracy: 1=±1%(Customized) Blank(default)=±2%

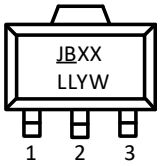
MARKING DESCRIPTON

Output Voltage Code X

VOUT	Code	VOUT	Code	VOUT	Code
1.2V	2	2.9V	$\bar{9}$	4.3V	$\underline{\bar{3}}$
1.3V	3	3.0V	$\underline{0}$	4.4V	$\underline{\bar{4}}$
1.4V	4	3.1V	$\underline{1}$	4.5V	$\underline{\bar{5}}$
1.5V	5	3.2V	$\underline{2}$	4.6V	$\underline{\bar{6}}$
1.8V	8	3.3V	$\underline{3}$	4.7V	$\underline{\bar{7}}$
2.0V	$\bar{0}$	3.4V	$\underline{4}$	4.8V	$\underline{\bar{8}}$
2.1V	$\bar{1}$	3.5V	$\underline{5}$	4.9V	$\underline{\bar{9}}$
2.2V	$\bar{2}$	3.6V	$\underline{6}$	5.0V	$\underline{\underline{0}}$
2.3V	$\bar{3}$	3.7V	$\underline{7}$	5.1V	$\underline{\underline{1}}$
2.4V	$\bar{4}$	3.8V	$\underline{8}$	5.2V	$\underline{\underline{2}}$
2.5V	$\bar{5}$	3.9V	$\underline{9}$	5.3V	$\underline{\underline{3}}$
2.6V	$\bar{6}$	4.0V	$\underline{\bar{0}}$	5.4V	$\underline{\underline{4}}$
2.7V	$\bar{7}$	4.1V	$\underline{\bar{1}}$	5.5V	$\underline{\underline{5}}$
2.8V	$\bar{8}$	4.2V	$\underline{\bar{2}}$		

XX: Output Voltage, e.g. 18=1.8V 33=3.3V
Y: The Year of manufacturing,"1" stands for year 2011, "2" stands for year 2012, and "8" stands for year 2018.
W: The week of manufacturing. "A" stands for week 1,"Z" stands for week 26," $\bar{A}$ " stands for week 27," $\bar{Z}$ " stands for week 52.

PIN CONFIGURATION

Product Classification		BL8074GCC3TR□□
JBXX LLBYW	JB:Product Code XX:Output Voltage LL:LOT NO. B:FAB Code YW:Date Code	SOT89-3 
VDD	Supply Voltage Input	
GND	Ground Pin	
VOUT	Output Voltage	

ABSOLUTE MAXIMUM RATING

Parameter		Value
Max Input Voltage		6V
Max Operating Junction Temperature (T_J)		125°C
Ambient Temperature (T_A)		-40°C~85°C
Power Dissipation	SOT-89-3	800mW
Storage Temperature (T_S)		-65°C~150°C
Lead Temperature & Time		260°C, 10 Sec
ESD（HBM）		>2000V

RECOMMENDED WORK CONDITIONS

Parameter	Value
Input Voltage Range	Max. 6V
Ambient Temperature	-40°C~85°C
Operating Junction Temperature (T_J)	125°C

ELECTRICAL CHARACTERISTICS

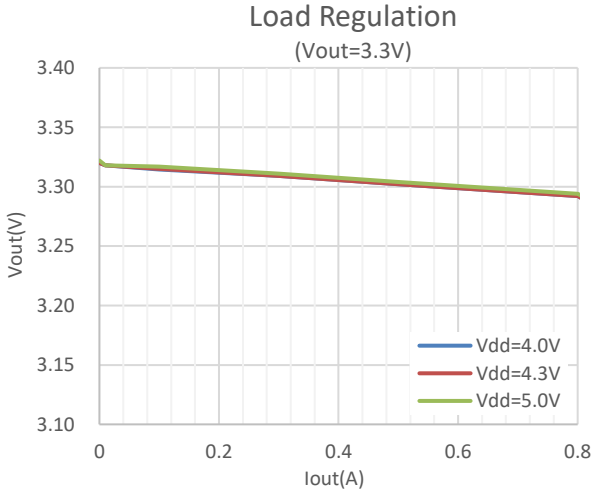
Test Conditions: C_{IN}=4.7uF,C_{OUT}=4.7uF,T_A=25°C, unless otherwise specified.

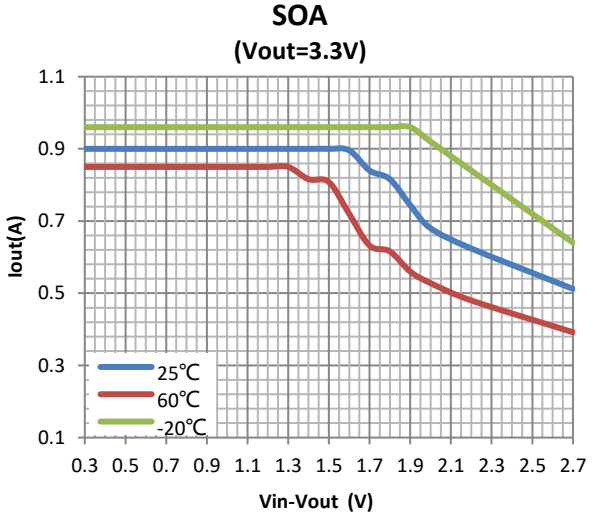
Symbol	Parameter		Conditions	Min	Typ	Max	Units
V_{DD}	Input Voltage			1.5*		6	V
V_{OUT}	Output Voltage	V_{OUT}>1.5	V_{DD}=Set V_{OUT}+1V 1mA≤I_{OUT}≤10mA	V_{OUT} X0.98	V_{OUT}	V_{OUT} X1.02	V
		V_{OUT}<=1.5		V_{OUT} -0.03		V_{OUT} +0.03	
I_{OUT} (Max.) **	Maximum Output Current		V_{DD}-V_{OUT}=1V	0.8			A
V_{DROP}	Dropout Voltage		V_{OUT} =3.3V, I_{OUT}=800mA		250	300	mV
$\frac{\Delta Vout}{\Delta Vin \cdot Vout}$	Line Regulation		I_{OUT}=10mA, 4V≤V_{DD}≤6V		0.05	0.2	%/V
$\Delta Vout$	Load Regulation		V_{DD}=Set V_{OUT}+1V 1mA≤I_{OUT}≤800mA		30	60	mV
I_Q	Supply Current		V_{DD}=Set V_{OUT}+1V, V_{OUT} Floating		100	150	uA
$\frac{\Delta Vout}{\Delta T \cdot Vout}$	Output Voltage Temperature Coefficient		I_{OUT}=10mA		±100		ppm/°C
PSRR	Ripple Rejection		f=100Hz, Ripple=0.5Vp-p, V_{DD}=Set V_{OUT}+1V		65		dB
T_{SD}	Thermal shutdown temp		V_{IN}=Set V_{OUT}+1V, I_{OUT}=10mA		170		℃
T_{SH}	Thermal shutdown hysteresis		V_{IN}=Set V_{OUT}+1V, I_{OUT}=10mA		35		℃

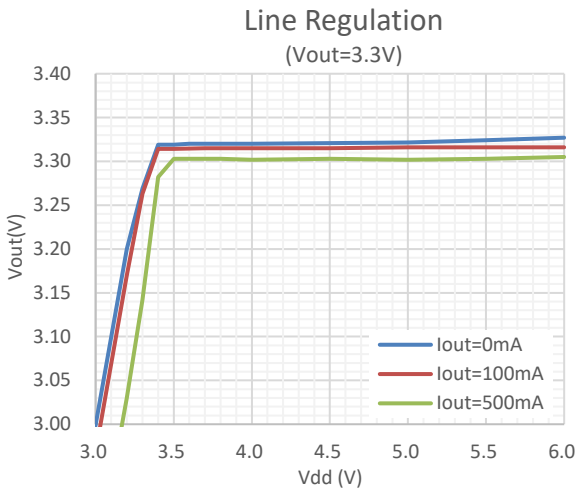
Note: *Iout=350mA@Vin=1.5V, Vout=1.2V

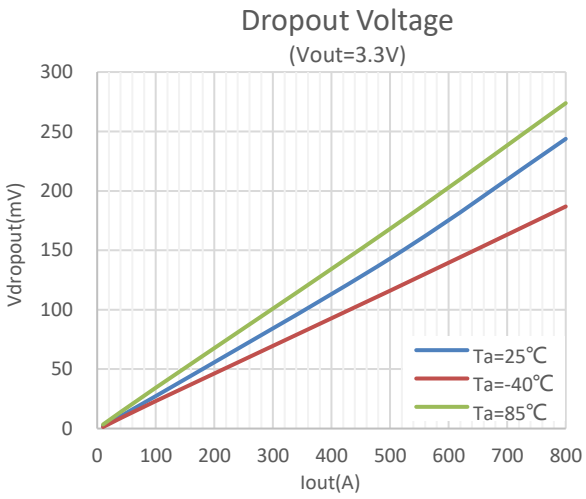
***The maximum power rating of each package is a constant, so along with the change of I_{LOAD}, the V_{DD}-V_{OUT} should be controlled to a certain range to ensure the normal operation.*

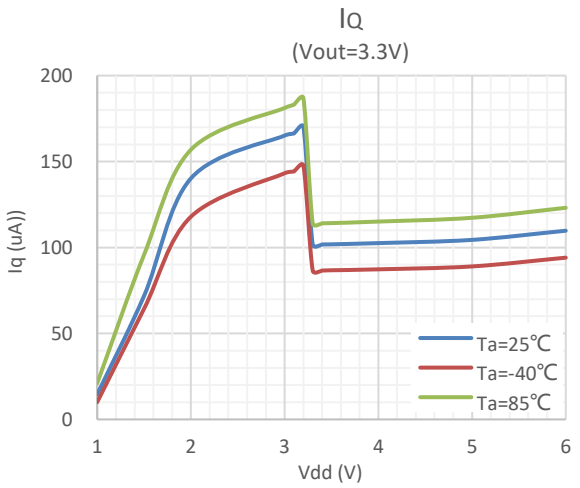
TYPICAL PERFORMANCE CHARACTERISTICS

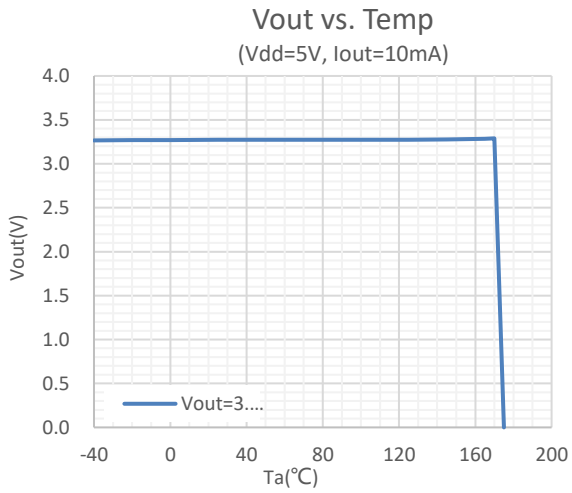






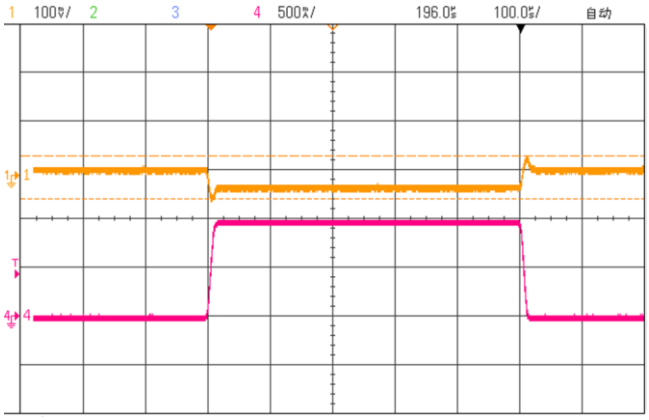






Load Transient Response (Vin=5V,Vout=3.3V)

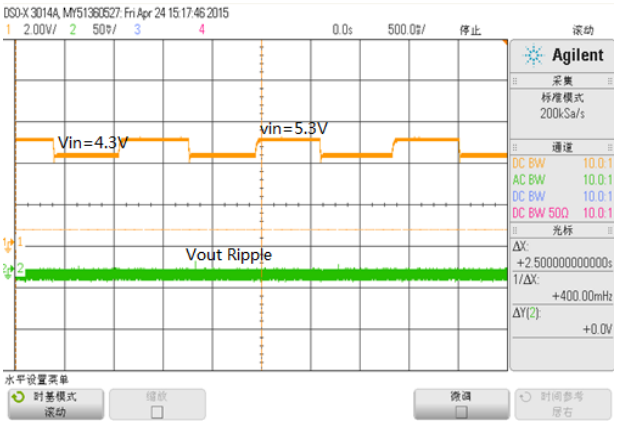
Cin=4.7uF,Cout=4.7uf,Iout=10mA-800mA



CH1: Vout_ripple, CH4: Iout

Line Transient Response(Vout=3.3V)

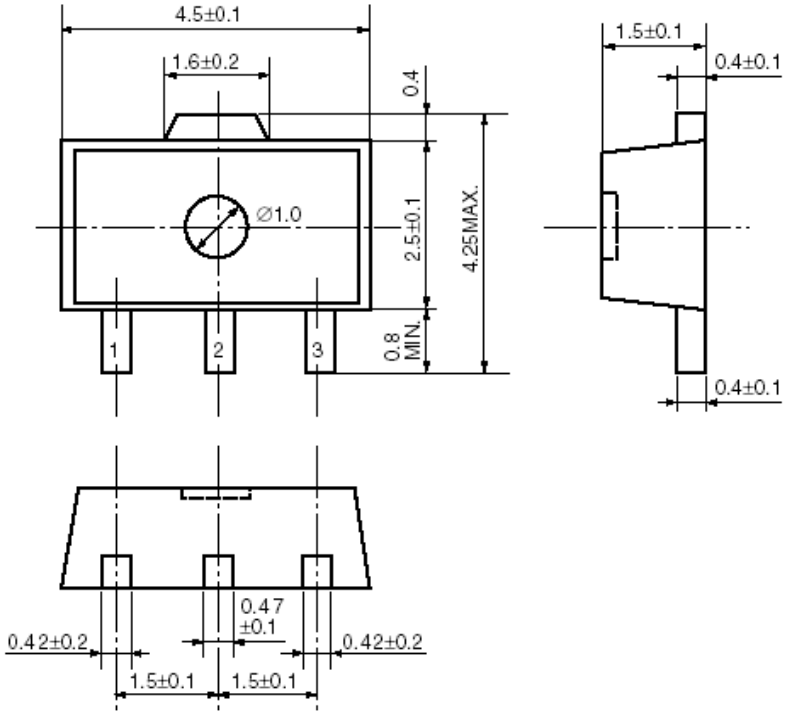
Cin=4.7uF,Cout=4.7uf,Iout=10mA,Vin=4.3V-5.3V



PACKAGE LINE

Package	SOT-89-3	Devices per reel	1000Pcs	Unit	mm

Package Dimension:



联系我们

深圳市泰德兰电子有限公司（简称：泰德兰），是一家专业代理国内外品牌电子元器件代理商。“泰德兰”的目标是为客户提供高性价比的产品和服务。我们一贯坚持：“品质第一、价格合理、交货快捷、 服务至上、凝聚客户”的发展理念和宗旨以向采购商提供最满意的服务为己任，向采购商提供规范化、专业化、多元化、全方位的优质服务，真诚欢迎海内外直接用户前来洽谈合作，共谋发展！也希望能与电子界同行进行广泛的交流合作共同为行业的繁荣发展做出贡献！

目前，泰德兰电子主要代理：霍尼韦尔、理光、NJRC、英集芯、维安、贝岭、捷捷微、冠禹、松木、辉芒微、茂捷等。

主营产品线有 LDO、DC/DC、AC-DC、电压检测器、充电 IC、负载开关 IC、保险丝、多功能集成保护 IC、功率 TVS 管、二三级管、PMU、马达驱动、LED 驱动、功率器件、数字电源、Hall IC、磁组、传感器 IC、汽容胶传感器、压力传感器、位移传感器、惯导模块、锂电保护芯片、微动开关、IGBT、PTC、ESD、EEPROM,8bit/32bit MCU,PMIC、中低 压 MOS 管、高压 COOL MOS、高压平面 MOSFET 等。

“泰德兰”代理的产品被广泛应用于液晶电视、笔记本、联网、便携式设备、机顶盒、闭路电视/安全、桌面、LED 照明、玩具、网络电视机、无人机、扫地机、无线充、蓝牙设备、汽车应用、行车记录仪、无线路由等领域。

“泰德兰”所代理的产品均通过 ISO 9001:2000 品质管理系统检验；获得原厂颁发的代理授权证书。

深圳公司

深圳市泰德兰电子有限公司

地址：深圳市福田区彩田南路 2010 号中深花园 A 座六层

电话：0755-83322522　　传真：0755-83648400

手机：131-89714166　　Q Q：2853781768