

Communication ICs

# Flash LED Management IC

## BH6048GLU/KN

### Description

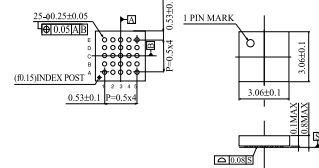
BH6048GLU/KN is a chopper type step-up DC/DC converter to drive RGB LED or white LED in cellular phones. High-efficient with a large current driver, this IC could be used as a camera flash by simultaneous R.G.B. light-emitting.

### Features

- Built-in step-up DC/DC converter to drive R.G.B. LED or white LED for back light
- 3-channel large current LED driver can be used as camera flash by simultaneous R.G.B. light-emitting  
Flash drive : 75~150mA in 25mA step  
Illumination drive : 1.5~24mA in 1.5mA step
- 3-channel LED driver can drive 6-white LEDs
- LED lighting synchronized with melody by LED ON/OFF control pin (T1~3CNT)
- Power supply voltage : 3.0 to 4.5V

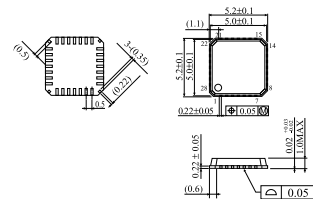
### Dimension (Unit : mm)

BH6048GLU



FLGA25R1

BH6048KN



VQFN28

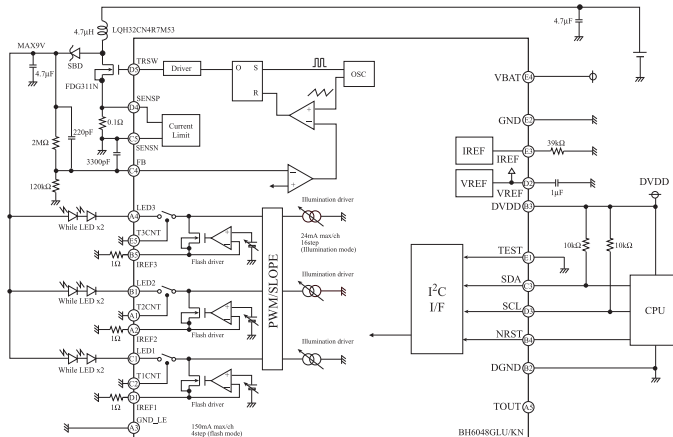
### Electrical characteristics

(Unless otherwise noted; Ta=25°C, VBAT=3.6V, DVDD=2.8V)

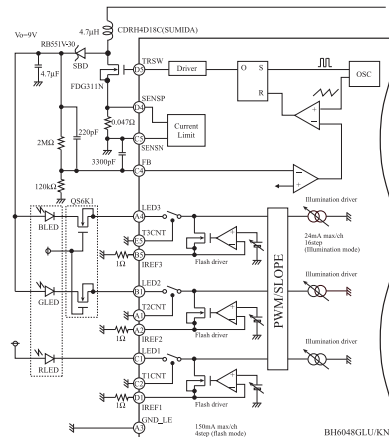
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	
Circuit current (VBAT)	IQ1	—	2.5	—	mA	DC-DC converter ON, Io=0mA, All LED drivers are active.	
DC-DC converter block							
Output voltage1	VO1	—	7.0	—	V	IOUT=300mA	
Output voltage2	VO2	—	9.0	—	V	IOUT=72mA	
Oscillating frequency	fosc	—	1.20	—	MHz		
LED1,2,3 driver block							
Flash mode	Max. output current	I.ED1max I.ED2max I.ED3max	—	150	—	mA	Pin voltage is 0.5V
	Output current step	I.ED1step I.ED2step I.ED3step	—	25	—	mA	Pin voltage is 0.5V
Illumination mode	Max. output current	I.ED1max I.ED2max I.ED3max	—	24	—	mA	Pin voltage is 1.0V
	Output current step	I.ED1step I.ED2step I.ED3step	—	1.5	—	mA	Pin voltage is 1.0V

### Application Circuit

Example of main LCD+white flash LED (Back light)



Example of R.G.B flash LED



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