

## Two Channel Constant Current Regulator

### FEATURES

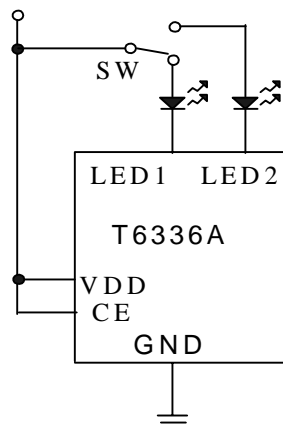
- Two Channel Constant Current Regulator
- Option Current:  
260mA/85mA, 260mA/130mA, 240mA/120mA, 225mA/110mA
- Low Dropout Voltage
- Low 0.1 uA Shutdown Supply Current
- TO-252 lead-free Package
- ESD Human Body Mode Over 5KV
- 2.7V to 5V Supply Voltage Range
- Build in Thermal Protect 160 °C

### APPLICATIONS

- Flash Light
- Lighting
- Portable Communication Devices
- Handheld Electronics
- DC/DC LED driver

### TYPICAL APPLICATION CIRCUITS

V<sub>IN</sub> 2.7V ~ 5V



### GENERAL DESCRIPTION

The T6336A low-dropout bias supply for white LED is a high-performance used in conventional white LED designs.

The T6336A much lower bias variation with supply voltage variation, significantly lower dropout voltage and Low Shutdown Supply Current, and in some applications, significantly improved efficiency from DC 2.7V to 5V. The T6336A is available in TO-252 lead-free package.

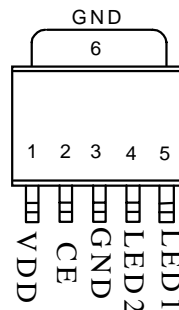
### PART NUMBER EXAMPLES

Part no.	Current	Package type
T6336A-2685WG	260mA/85mA	TO-252
T6336A-2613WG	260mA/130mA	TO-252
T6336A-2412WG	240mA/120mA	TO-252
T6336A-2211WG	225mA/110mA	TO-252

### PIN ARRANGEMENT

(Top view)

**TO-252**



**PIN DESCRIPTION**

SYMBOL	Pin no.	DESCRIPTION
VDD	1	Power supply
CE	2	Chip enable
GND	3	Ground
LED2	4	LED2 Cathode Connection
LED1	5	LED1 Cathode Connection

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**ABSOLUTE MAXIMUM RATINGS**

Parameter	Symbol	Value	Unit
Voltage on any pin relative to GND	V <sub>IN</sub>	-0.3 to 6	V
Operating Temperature Rang	T <sub>A</sub>	-40 to +85	°C
Maximum Soldering Temperature (at leads, 10 sec)	T <sub>LEAD</sub>	300	°C
Storage Temperature Rang	T <sub>S</sub>	-65 to +150	°C
Continuous Power Dissipation ( T <sub>A</sub> = +70°C )		1	W

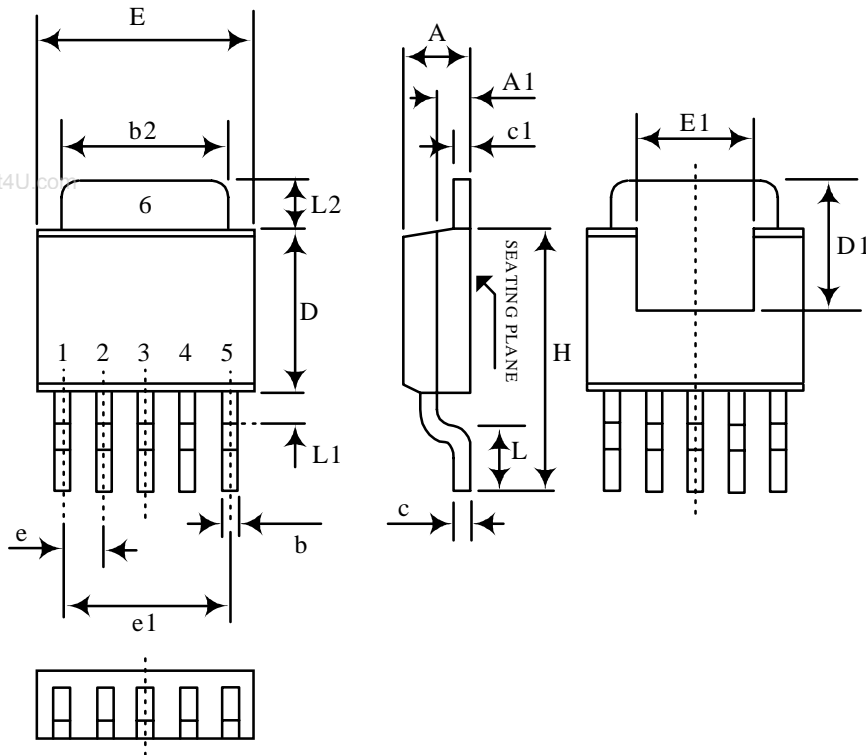
**Electrical Characteristics**

(Typical values are at TA =25°C)

Symbol	Description	Conditions	Min.	Typ.	Max	Unit
VDD	Operating voltage range	VDD is power supply input	2.7		5	V
I <sub>LED</sub>	Maximum LED sink current	VDD = 4.5V VLED =3.5V	LED1		225	mA
					240	
					260	
			LED2		85	mA
					110	
					120	
				130		
T <sub>TP</sub>	Thermat Protect			160		°C
I <sub>LSD</sub>	LED leakage current in shutdown	VDD = GND, VLED = 5V		0.2	1	uA

**PACKAGE DIMENSIONS**

**5-LEAD TO-252**



Symbol	Dimension in inch		Dimension in mm	
	Min.	Max.	Min.	Max.
A	0.087	0.094	2.20	2.40
A1	0.040	0.050	1.00	1.27
b	0.016	0.24	0.40	0.60
b2	0.205	0.213	5.20	5.40
c	0.017	0.023	0.43	0.58
c1	0.017	0.023	0.43	0.58
D	0.213	0.224	5.40	5.70
D1	0.150 (REF.)		3.80 (REF.)	
E	0.250	0.262	6.35	6.65
E1	0.150 (REF.)		3.80 (REF.)	
e	0.050 (TYP.)		1.27 (TYP.)	
e1	0.200 (TYP.)		5.08 (TYP.)	
H	0.313	0.338	7.94	8.6
L	0.055	0.070	1.40	1.78
L1	0.043	0.047	1.09	1.19
L2	0.050	0.060	1.30	1.50