

Two Channel Constant Current Regulator

FEATURES

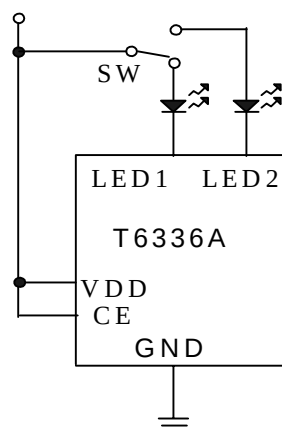
- **Two Channel Constant Current Regulator**
- **Option Current:**
260mA/85mA, 260mA/130mA, 240mA/120mA,
225mA/110mA
- **Low Dropout Voltage**
- **Low 0.1 uA Shutdown Supply Current**
- **TO-252 lead-free Package**
- **ESD Human Body Mode Over 5KV**
- **2.7V to 5V Supply Voltage Range**
- **Build in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

APPLICATIONS

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

TYPICAL APPLICATION CIRCUITS

$V_{IN} 2.7V \sim 5V$



GENERAL DESCRIPTION

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

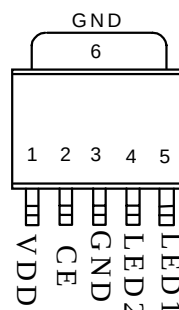
The T6336A much lower bias variation with supply voltage variation, significantly lower dropout voltage and Low Shutdown Supply Current, and in some applications, significantly improved efficiency from DC 2.7V to 5V. The T6336A is available in TO-252 lead-free package.

PART NUMBER EXAMPLES

Part no.	Current	Package type
T6336A-260AWG	260mA/85mA	TO-252
T6336A-260BWG	260mA/130mA	TO-252
T6336A-240AWG	240mA/120mA	TO-252
T6336A-225AWG	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

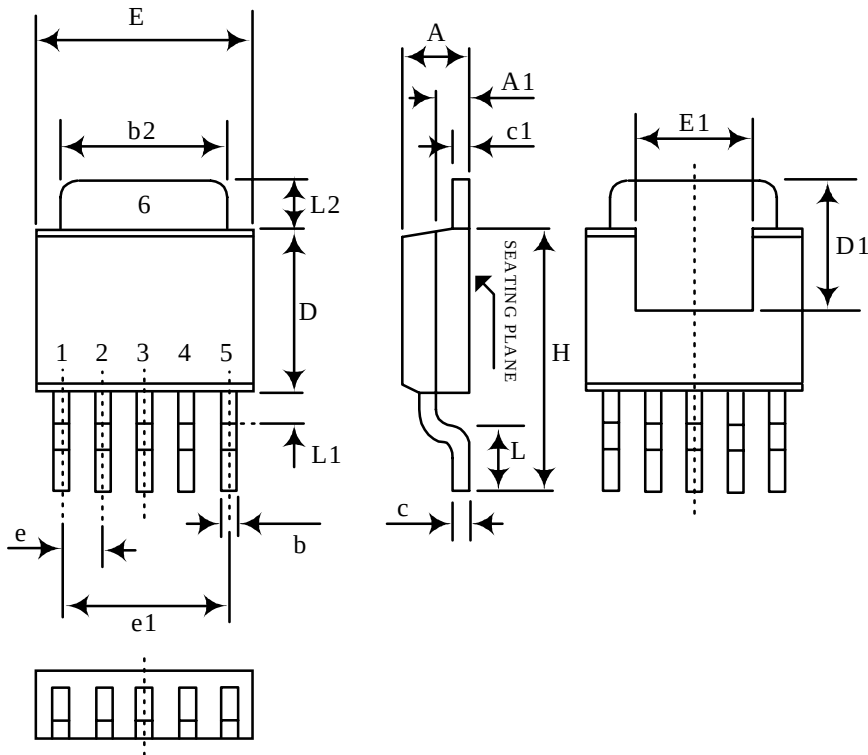
ABSOLUTE MAXIMUM RATINGS

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

Electrical Characteristics

 (Typical values are at T_A =25°C)

Symbol	Description	Conditions		Min.	Typ.	Max	Unit
V _{DD}	Operating voltage range	VDD is power supply input		2.7		5	V
I _{LED}	Maximum LED sink current	VDD = 4.5V VLED =3.5V	LED1		225		mA
					240		
					260		
			LED2		85		mA
					110		
					120		
					130		
T _{TP}	Thermat Protect				160		°C
I _{LS} D	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