

CYT1003AG dimming function of dual channel high voltage linear constant current LED driver IC



General Description

CYT1003AG is a dual-channel high-voltage linear constant current LED driver chip with dimming function. It adopts linear constant current technology to set the maximum driving current of LED string through external resistor. The output drive current can be adjusted by external input PWM pin voltage. The PWM waveform can be converted to a dimming voltage by a simple filter circuit. CYT1003AG can result the LED light string fully turned off. When the PWM port input is connected to GND, CYT1003AG completely turns off the internal LDNMOS, the current on the LED string is zero.

Electric Characteristics

Unless otherwise stated, $T_A=25^{\circ}\text{C}$.

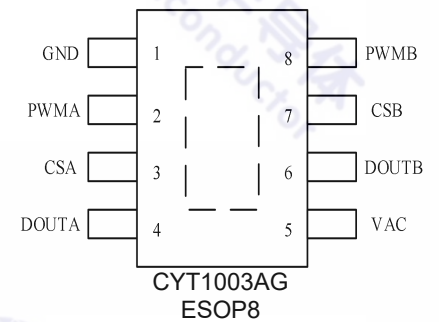
Symbol	Description	Condition	Min	Typ	Max	Unit
V_{AC}	Operating voltage	AC 200V~270V application	0	311	400	V
I_Q	Quiescent current	$V_{DD}=7.5\text{V}$	-	200	250	μA
V_{REF}	Reference voltage	$V_{VAC}>30\text{V}$, $V_{PWM}=3\text{V}$	1880	2000	2100	mV
V_{PWMOFF}	Shutdown voltage	$V_{VAC}>30\text{V}$	40	80	120	mV
I_{DOUT}	Drive current	$V_{VAC}>30\text{V}$, $V_{PWM}=3\text{V}$, sampling resistor 25Ω	-	80	-	mA
T_{SC}	Temperature compensation point	-	-	125	130	$^{\circ}\text{C}$

Absolute Maximum Ratings

Unless otherwise stated, $T_A=25^{\circ}\text{C}$.

Symbol	Description	Range	Unit
V_{OUT}	High voltage pin voltage pressure (DOUTA/DOUTB/VAC)	500	V
V_{CS}	Low voltage pin withstand voltage (CSA/CSB/PWMA/PWMB)	10	V
T_{STG}	Storage temperature	-50~150	$^{\circ}\text{C}$
T_{OPT}	Operating temperature	-40~150	$^{\circ}\text{C}$
V_{ESD}	HBM ESD	2	kV

Pin Diagram (top view)



Typical Application

