

PIEZOELECTRIC INVERTER MODULE

FEATURES

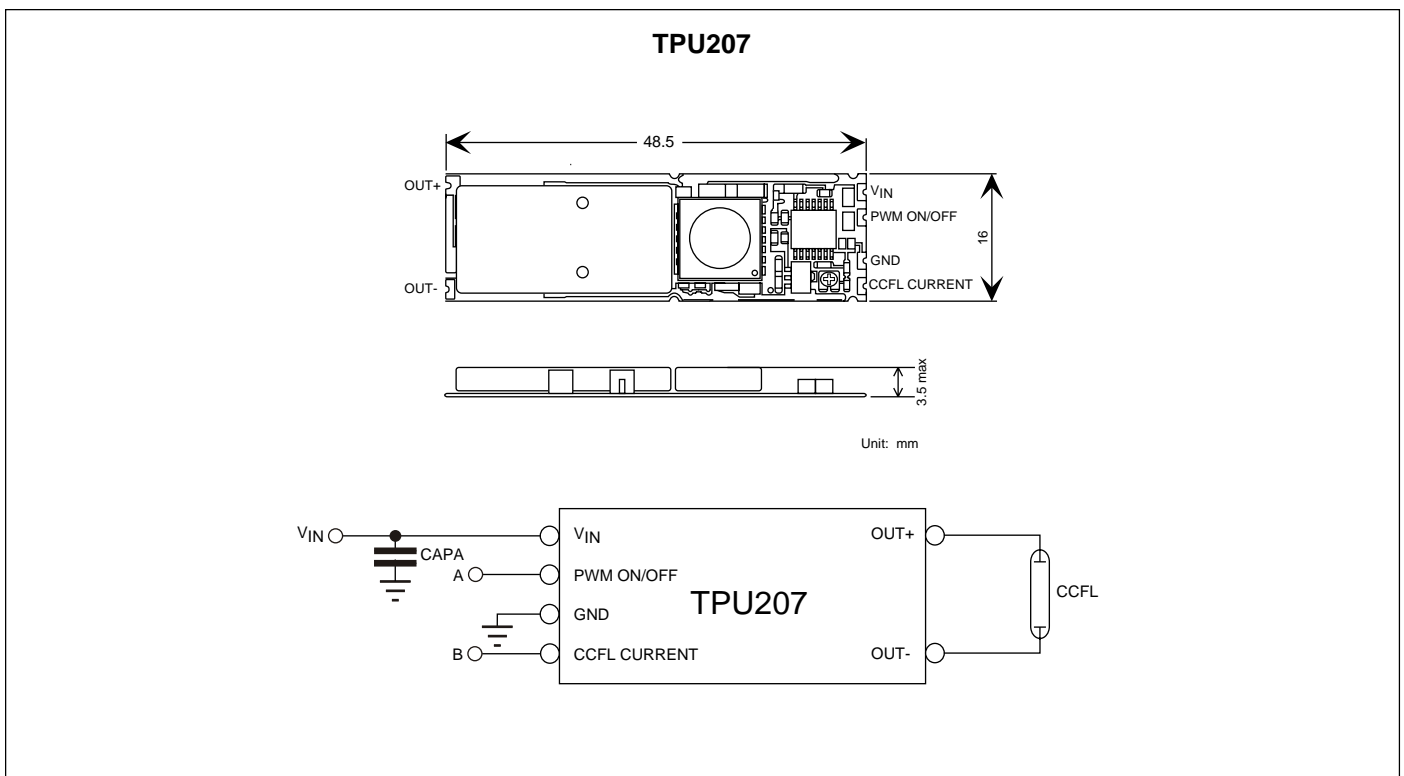
- Small and Very Low Profile (h = 3.5 mm max.)
- Wide Input Voltage Range
- No Leakage Flux
- Low Distortion Sinusoidal Waveform
- Ceramic Materials Improve Safety

APPLICATIONS

- Camcorder Built-In LCD Monitor
- Digital Electronic Still Cameras
- Portable Video Equipment
- Color GPS Displays
- Personal Digital Assistant (PDA)
- Instrumentation LCD Monitors

DESCRIPTION

The TPU207 is a CCFL driving inverter unit with a maximum height of 3.5 mm. It uses a piezo-ceramic transformer and is suitable as an inverter unit for small LCD monitors (1.8 to 4.0 inch display).



TPU207

SPECIFICATIONS

Toko Part Number TPU207N-1001

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
V_{IN}	Module Input Voltage		5		9	V
$V_{IN(PWM)}$	PWM ON/OFF Control Voltage	f = 100 to 500 Hz, Duty Cycle 20% to 100% Note 1	2.7		9	V
$V_{IN(CURRENT)}$	CCFL Current Control Voltage	Note 2	2.5		4.1	V
V_{ODC}	Output Open Circuit Voltage		1500			Vrms
P_{CCFL}	Power Consumption of CCFL				1.5	W
F_{OSC}	Oscillating Frequency			190		kHz
T_{OP}	Operating Temperature Range		0		60	° C
I_{OUT}	Output Load Current				2.5	mArms
EFF	Efficiency	$V_{IN} = 5 V$	80			%
I_{CCFL}	CCFL Current	$V_{IN(CURRENT)} = 4.1 V$		1.2		mA
		$V_{IN(CURRENT)} = 2.5 V$		2.5		mA
$V_{PWM(ON)}$	PWM ON/OFF ON	Output ON Voltage and Duty Cycle	2.7			V
			20			%
$V_{PWM(OFF)}$	PWM ON/OFF OFF	Output OFF Voltage or Duty Cycle	0			V
			0		20	%

Gen. Notes: Order of Power On should be CCFL Current → V_{IN} → PWM ON/OFF.

Inverter Module generates high voltage and should not be touched during operation.

Note 1: PWM ON/OFF Control Pin is connected to V_{IN} when PWM ON/OFF Control is always 100% Duty Cycle.

Note 2: CCFL Current is 1.2 mA minimum when $V_{IN(CURRENT)}$ is 4.1 V.

CCFL Current is 2.5 mA maximum when $V_{IN(CURRENT)}$ is 2.5 V.