

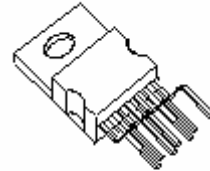
# UTC78045

# LINEAR INTEGRATED CIRCUIT

## TV and CRT Display Vertical Output IC with Bus Control Support

### DESCRIPTION

The UTC78045 is a vertical deflection output for high image quality TV and CRT displays that supports the use of a bus control system signal-processing IC. The sawtooth waveform the bus control system signal-processing IC can directly drive the deflection yoke (including the DC component).



TO-220B-7L

### FUNCTIONS

- \* Built-in pump-up circuit for low power dissipation.
- \* Vertical output circuit.
- \* Thermal protection circuit.

### SPECIFICATIONS

#### MAXIMUM RATINGS at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Pump-up block supply voltage	+B2 max		45	V
Output block supply voltage	+B6 max		92	V
Allowable power dissipation	Pd max	Mounted on an arbitrarily large heat sink	9	W
Deflection output current	I5 max		-1.5 to +1.5	Ap-o
Thermal resistance	$\theta_{j-c}$		3	°C/W
Operating temperature	Topr		-20 to +85	°C
Storage temperature	Tstg		-40 to +150	°C

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## OPERATING CONDITIONS at Ta=25°C

Parameter	Symbol	Condi ti ons	Rati ngs	Uni t
Recommended supply vol tage	+B2		30	V
Operating supply vol tage range	+B2op		16 to 43	V
Deflection output current	I5p-p		To 3.0	Ap-p

## OPERATING CHARACTERISTICS at Ta=25°C, +B2=24V

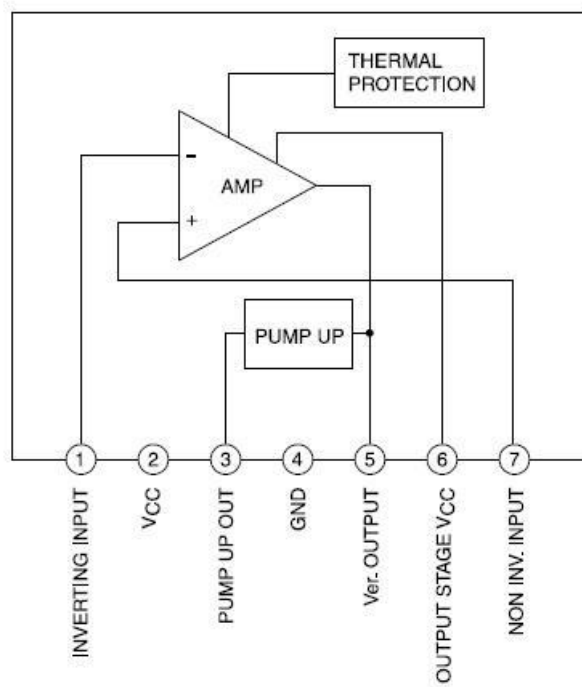
Parameter	Symbol	Condi ti ons	Rati ngs			Uni t
			mi n	typ	max	
Deflection output saturation voltage(lower)	Vsat5-4	I5=1.1A			1.5	V
Deflection output saturation voltage(upper)	Vsat6-5	I5= -1.1A			3.5	V
Pump-up charge saturation voltage	Vsat3-4	I3=20mA			1.8	V
Pump-up discharge saturation voltage	Vsat2-3	I3= -1.1A			3.2	V
Idling current	Idl			50		mA
Midpoint voltage	Vmind		14.0	15.0	16.0	V

Note: Current flowing into the IC is positive(+) and current flowing out is negative(-).

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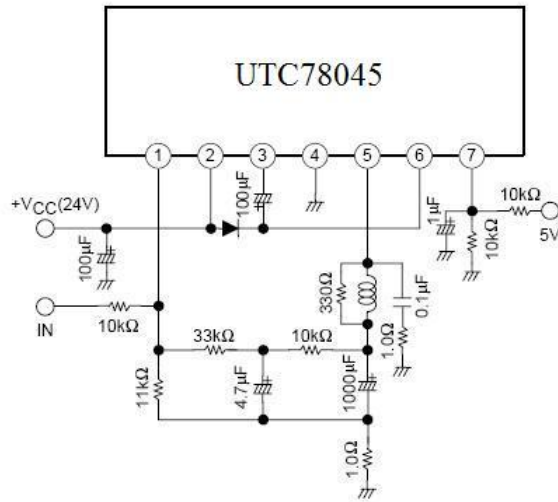
BLOCK DIAGRAM



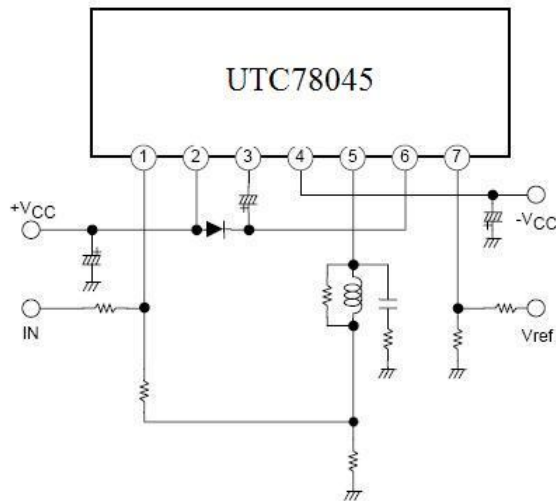
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APPLICATION CIRCUIT EXAMPLE 1(SIGNAL POWER SUPPLY)



APPLICATION CIRCUIT EXAMPLE 2(DUAL POWER SUPPLY)



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PACKAGE OUTLINE

