



## T78040

## LINEAR INTEGRATED CIRCUIT

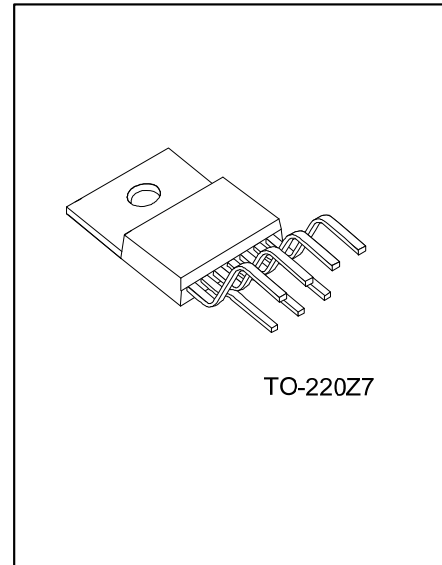
### VERTICAL DEFLECTION OUTPUT CIRCUIT

#### ■ DESCRIPTION

The UTC **T78040** is a monolithic integrated circuit and designed for use in high-definition TV and CRT monitors. It is intended to directly drive the deflection coil. Besides, the T78040 offers a maximum deflection current of 1.8A peak to peak to suitable for small to medium diameter CRTs.

#### ■ FEATURES

- \* Deflection current can be 1.8A peak value
- \* Deflection voltage up to 70V
- \* Flyback generator
- \* Thermal protection circuit
- \* Low cross-over distortion
- \* Supports DC Coupling

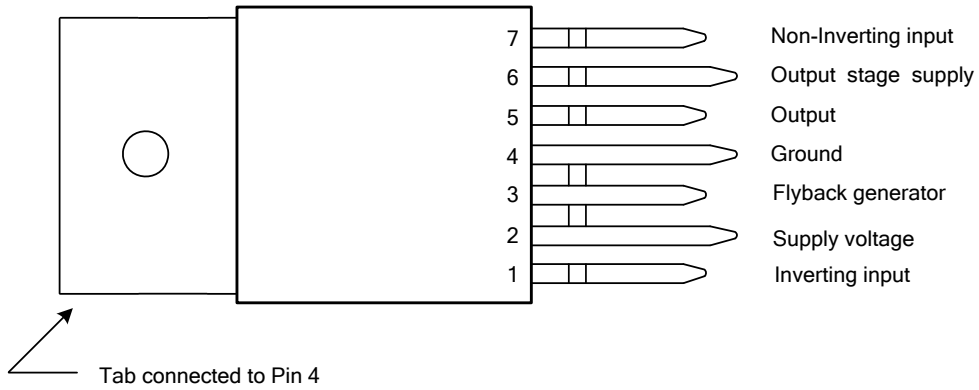


#### ■ ORDERING INFORMATION

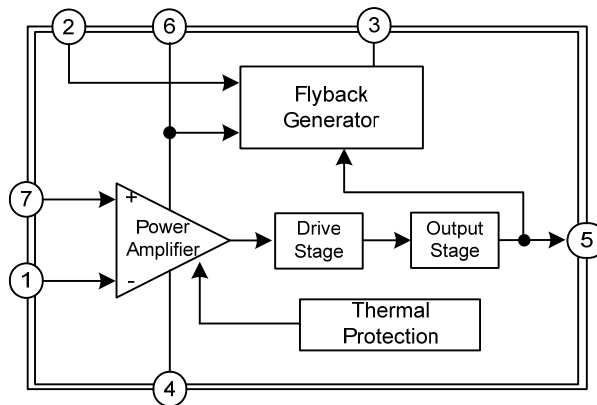
| Ordering Number |               | Package  | Packing |
|-----------------|---------------|----------|---------|
| Lead Free       | Halogen Free  |          |         |
| T78040L-TB7-T   | T78040G-TB7-T | TO-220Z7 | Tube    |

|  |  |
|--|--|
| <p>T78040L-TB7-T</p> <p>(1)Packing Type<br/>(2)Package Type<br/>(3)Lead Free</p> | <p>(1) T: Tube<br/>(2) TB7: TO-220Z7<br/>(3) G: Halogen Free, L: Lead Free</p> |
|--|--|

## ■ PIN CONFIGURATIONS



## ■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>= 25°C)

| PARAMETER   | SYMBOL            | RATINGS     | UNIT |
|---|-------------------|-------------|------|
| Supply Voltage (pin 2 to Pin4)                    | V <sub>CC2</sub>  | 34          | V    |
| Output Peak Power Supply Voltage (Pin 5 to Pin 4) | V <sub>CC6</sub>  | 70          | V    |
| Output Peak Current                               | I <sub>5MAX</sub> | -1.5 ~ +1.5 | A    |
| Power Dissipation                                 | P <sub>D</sub>    | 9           | W    |
| Junction Temperature                              | T <sub>J</sub>    | 150         | °C   |
| Operating Temperature                             | T <sub>OPR</sub>  | -20 ~ +85   | °C   |
| Storage Temperature                               | T <sub>STG</sub>  | -40 ~ +150  | °C   |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL DATA

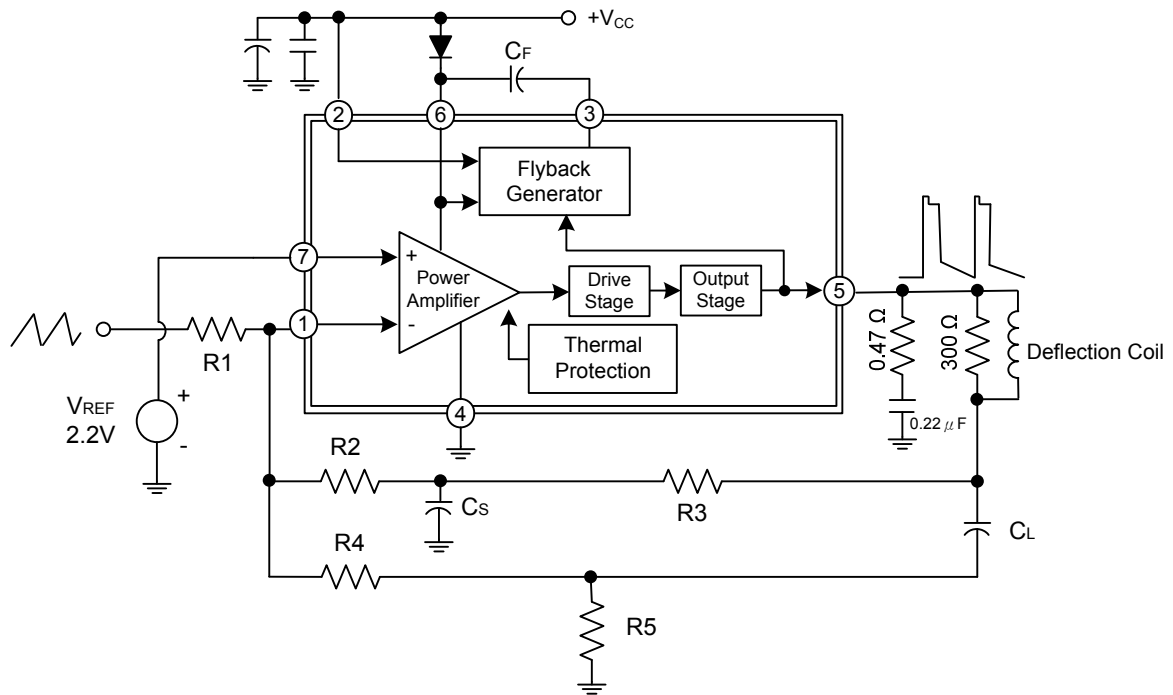
| PARAMETER        | SYMBOL          | RATINGS | UNIT |
|------------------|-----------------|---------|------|
| Junction to Case | θ <sub>JC</sub> | 4.0     | °C/W |

■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C, V<sub>CC</sub> = 24V, unless otherwise specified)

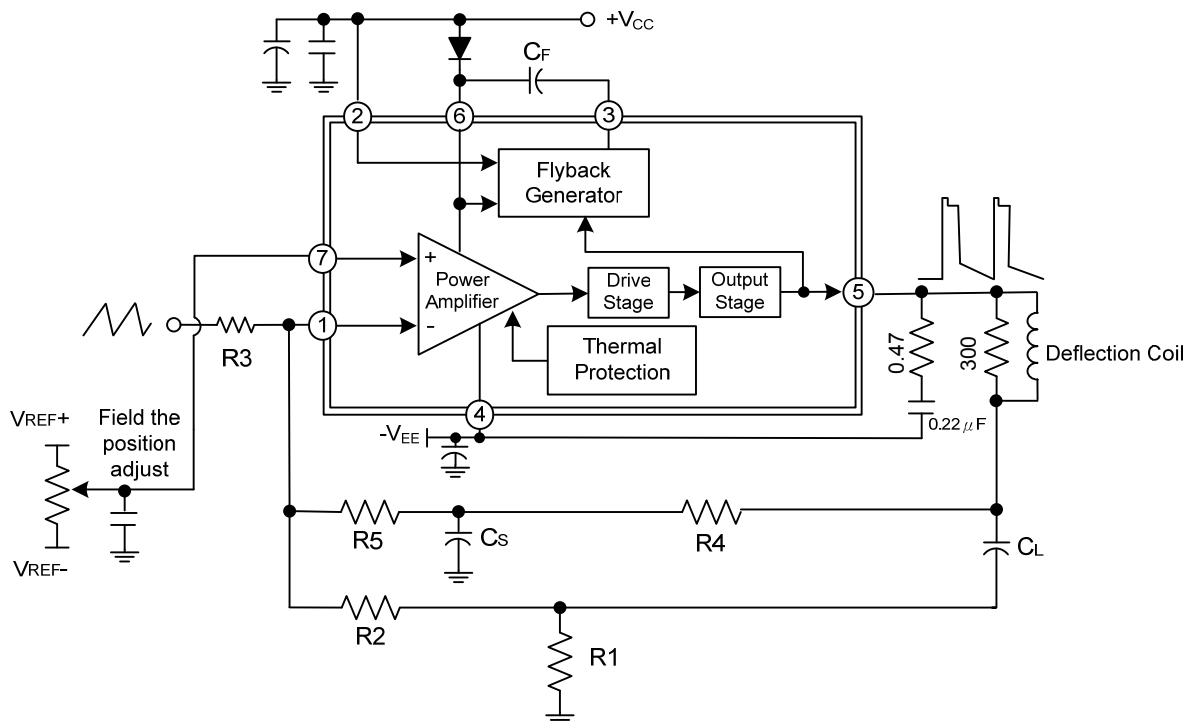
| PARAMETER   | SYMBOL              | TEST CONDITIONS        | MIN | TYP | MAX | UNIT |
|---|---------------------|------------------------|-----|-----|-----|------|
| Supply Voltage                                    | V <sub>CC</sub>     |                        | 16  | 24  | 33  | V    |
| Output Saturated Voltage to GND                   | V <sub>S5-4</sub>   | I <sub>5</sub> =0.9A   |     |     | 1.3 | V    |
| Output Saturated Voltage to Supply                | V <sub>S5-6</sub>   | I <sub>5</sub> =-0.9A  |     |     | 3.2 | V    |
| Saturation Voltage on Pin 3                       | V <sub>S3-4</sub>   | I <sub>3</sub> = 20mA  |     |     | 1.8 | V    |
| Saturation Voltage to Pin 3 (2nd part of flyback) | V <sub>S3-2</sub>   | I <sub>3</sub> = -0.9A |     |     | 3.0 | V    |
| Output Middle Point Voltage                       | V <sub>O(MID)</sub> |                        | 11  | 12  | 13  | V    |
| Quiescent Current                                 | I <sub>Q</sub>      |                        | 20  |     | 45  | mA   |
| Recommend Biggest Deflect Current                 | I <sub>5P-P</sub>   |                        |     |     | 1.8 | A    |

## APPLICATION CIRCUITS

### For AC Coupling (Single Power Supply)



### For DC Coupling (Dual Power Supply)



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