

UTC UNISONIC TECHNOLOGIES CO., LTD

L88312

Preliminary

LINEAR INTEGRATED CIRCUIT

SOP-8

SHORT CIRCUIT PROTECT **BLOCK FOR LNB**

DESCRIPTION

The UTC L88312 is designed for short circuit protection of LNB application. The device operated same as a power switch when the LNB stage in normal operation. And the device will supply constant current when the LNB stage in short circuit state. The constant current can be set by external resistor between V_{IN} pin and RSENSE pin.

FEATURES

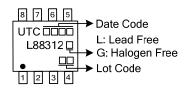
- * Wide operating voltage range: 8V~32V
- * Low on resistance:320 mΩ
- * Constant current set by external resistor
- * Thermal shutdown

ORDERING INFORMATION

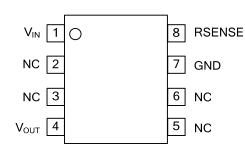
| Ordering Number | | Daakaga | Docking | |
|-----------------|---------------|---------|-----------|--|
| Lead Free | Halogen Free | Package | Packing | |
| L88312L-S08-R | L88312G-S08-R | SOP-8 | Tape Reel | |

| L88312G-S08-R | |
|---------------|--|
| (1)Packing Ty | pe (1) R: Tape Reel |
| (2)Package T | ype (2) S08: SOP-8 |
| (3)Green Pac | kage (3) G: Halogen Free and Lead Free, L: Lead Free |
| | |

MARKING -



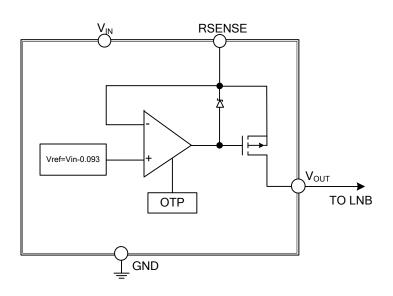
PIN CONFIGURATION



PIN DESCRIPTION

| PIN NO. | PIN NAME | DESCRIPTION |
|---------|------------------|---|
| 1 | V _{IN} | Power Supply |
| 2 | NC | No Connection |
| 3 | NC | No Connection |
| 4 | V _{OUT} | V _{OUT} to LNB Stage |
| 5 | NC | No Connection |
| 6 | NC | No Connection |
| 7 | GND | Ground |
| 8 | RSENSE | Sense Resistor for Constant Current Set |

BLOCK DIAGRAM





■ ABSOLUTE MAXIMUM RATING

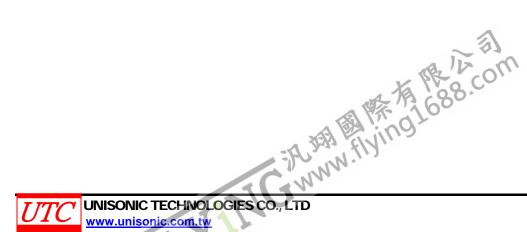
| PARAMETER | SYMBOL | RATINGS | UNIT |
|---|------------------|------------|------|
| Power Supply Voltage (V _{CC} to GND) | V _{IN} | 32 | V |
| Operating Junction Temperature | ТJ | +150 | °C |
| Operating Temp Range | T _{OPR} | -40 ~ +105 | °C |
| Storage Temperature Range | T _{STG} | -55 ~ +150 | °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.

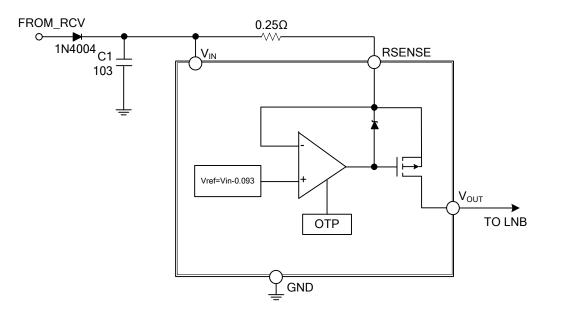
ELECTRICAL CHARACTERISTICS

(T_A=25°C, V_{CC}=22V, R_{SENSE} =0.250hm, unless otherwise stated)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|-------------------|----------------------|--|-----|-----|-----|------|
| Supply Voltage | VIN | | 8 | | 32 | V |
| Supply Current | l _{iN} | No load, R _{SENSE} =V _{IN} | | 3 | 6 | mA |
| IOUT Limit | I _{O_LIMIT} | lo sweep | 320 | 370 | 420 | mA |
| On Resistance | Ron | R _{SENSE} =V _{IN} | | 320 | | mohm |
| Over Temp Protect | OTP_ON | | | 155 | | °C |
| | OTP_OFF | | | 125 | | °C |



TYPICAL APPLICATION CIRCUIT



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