



## 7642

## LINEAR INTEGRATED CIRCUIT

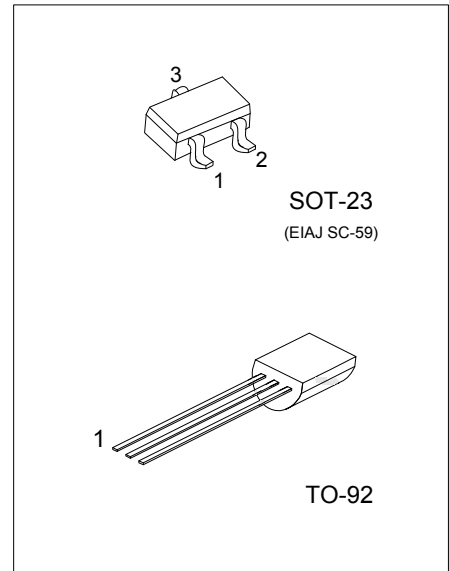
### ONE CHIP AM RADIO CIRCUIT

#### DESCRIPTION

UTC **7642** is suitable for low voltage portable Radio, cassette system and other wireless AM system.

#### FEATURES

- \*Low operating voltage: Down to  $V_{CC}=1.3V$
- \*Low Quiescent Current:  $I_{CCO}=0.2mA$
- \*Low external component required.



#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
7642L-AE3-R	7642G-AE3-R	SOT-23	G	O	I	Tape Reel
7642L-T92-B	7642G-T92-B	TO-92	G	I	O	Tape Box
7642L-T92-K	7642G-T92-K	TO-92	G	I	O	Bulk

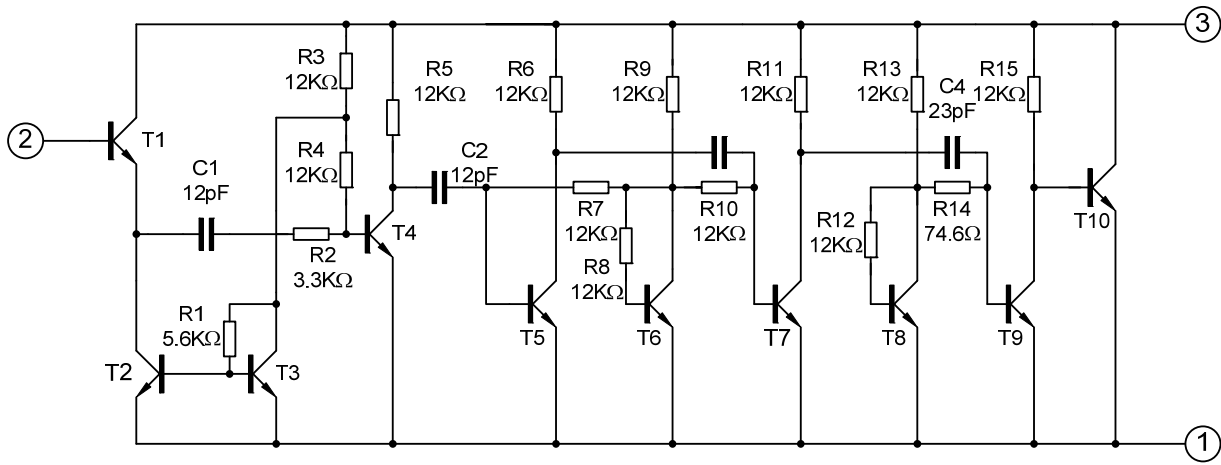
Note: Pin Assignment: G: GND O:  $V_{OUT}$  I:  $V_{IN}$

<p>7642G-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box, K: Bulk (2) AE3: SOT-23, T92: TO-92 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
---	---

#### MARKING

SOT-23	TO-92
<p>L: Lead Free G: Halogen Free</p>	<p>UTC 7642 L: Lead Free G: Halogen Free Date Code</p>

■ EQUIVALENT CIRCUIT



■ ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , unless otherwise specified)

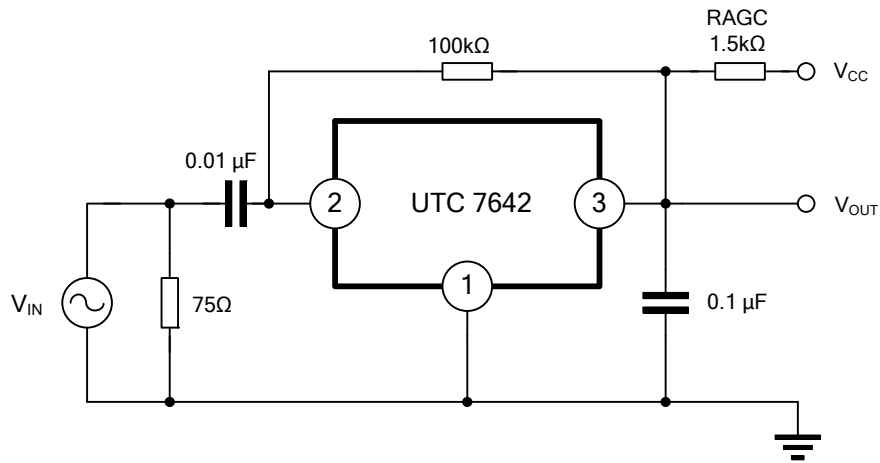
PARAMETER	SYMBOL	RATINGS		UNIT
		MIN	MAX	
Supply Voltage	$V_{CC}$		6	V
Operating Temperature	$T_{OPR}$	-10	60	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55	+150	$^\circ\text{C}$

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.

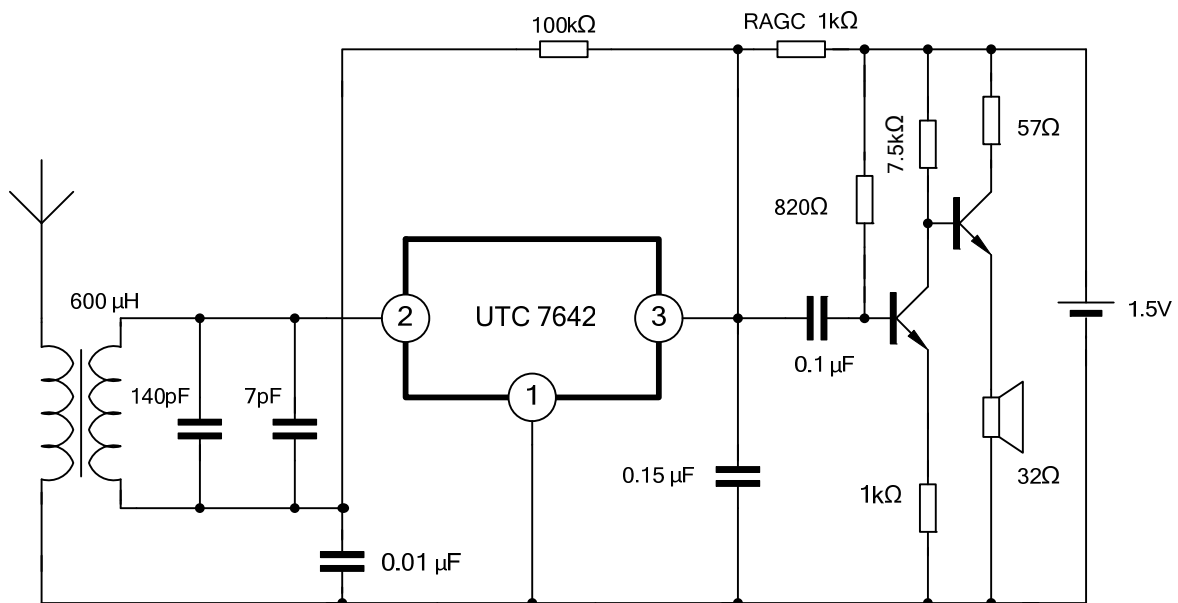
■ ELECTRICAL CHARACTERISTICS ( $T_J=25^\circ\text{C}$ , unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	$V_{CC}$		1.2	1.3	1.6	V
Quiescent Current	$I_{CCQ}$	$V_I=0$	0.14	0.20	0.30	mA
Input Resistance	$R_i$		-	3	-	$\text{M}\Omega$
Maximum Sensitivity	$S_M$	$V_{OD}=3\text{mV}$	-	600	-	$\mu\text{V}$
Detector Output Voltage	$V_{OD}$	$V_I=10\text{mV}$	5	15	30	mV
The Range of AGC	$\Delta_A$		-	30	-	dB

## ■ TEST CIRCUIT



## ■ APPLICATION CIRCUIT



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.