



# 7642

## LINEAR INTEGRATED CIRCUIT

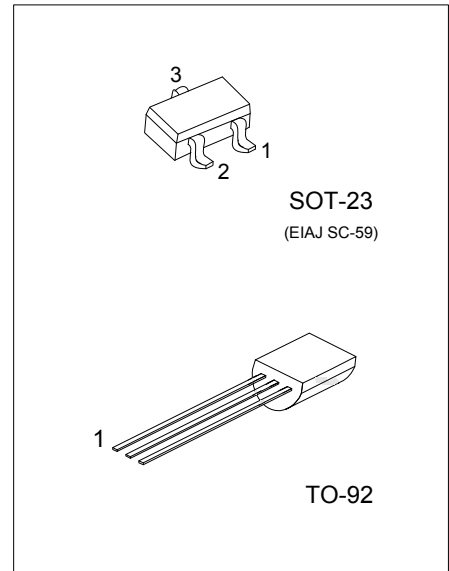
### ONE CHIP AM RADIO CIRCUIT

■ 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	O	G	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

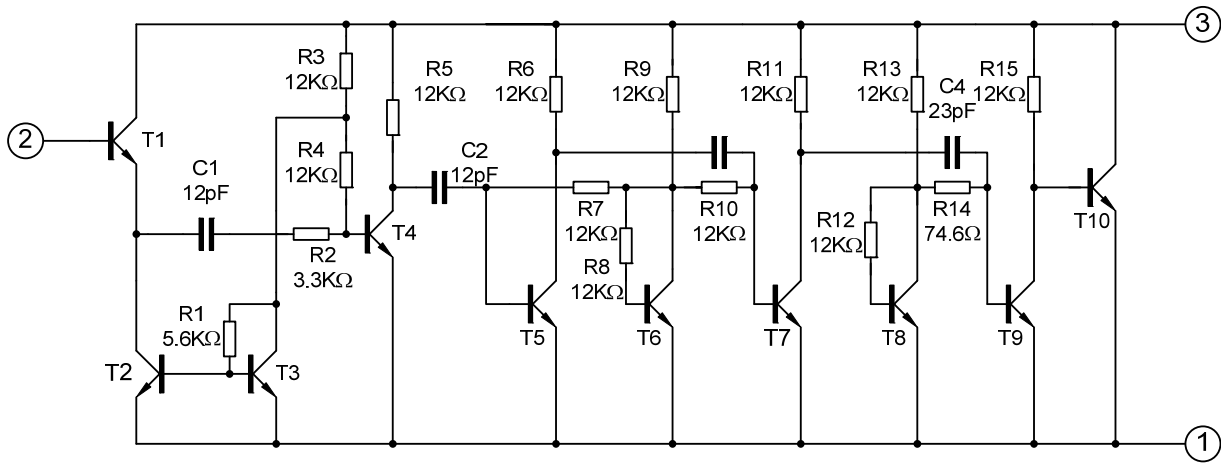
Note: Pin Assignment: G: GND I:  $V_{IN}$  O:  $V_{OUT}$

<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>
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■ 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)

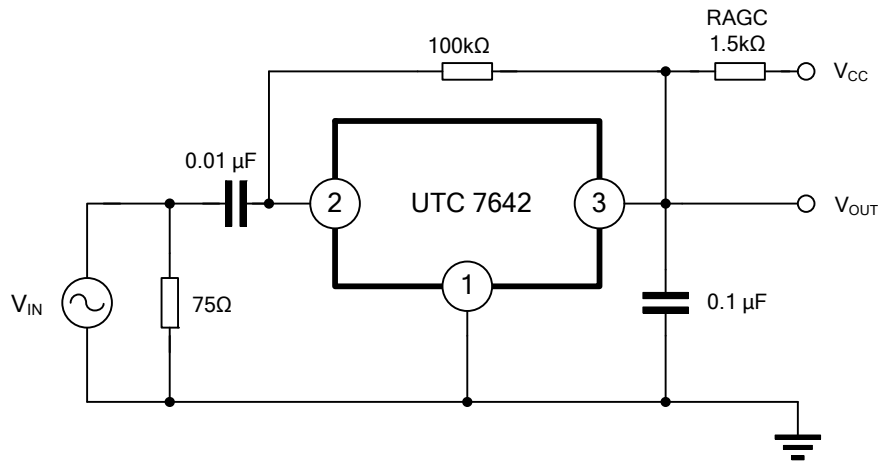
PARAMETER	SYMBOL	RATINGS		UNIT
		MIN	MAX	
Supply Voltage	$V_{CC}$		6	V
Operating Temperature	$T_{OPR}$	-10	60	$^\circ\text{C}$
Storage temperature	$T_{STG}$	-55	150	$^\circ\text{C}$

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.

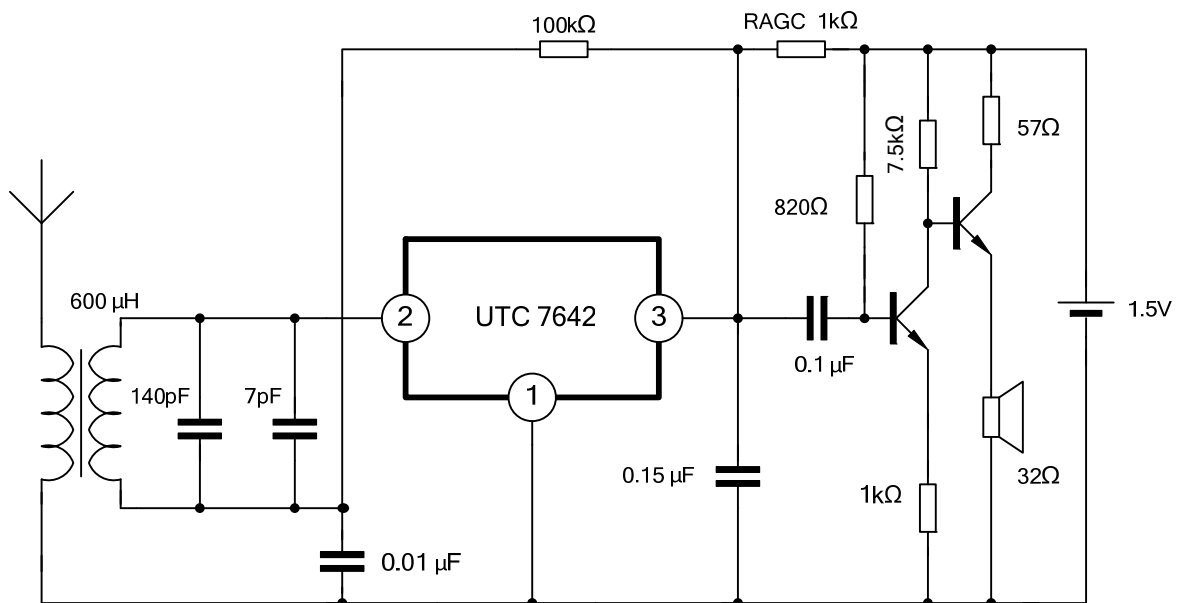
■ ELECTRICAL CHARACTERISTICS ( $T_J=25^\circ\text{C}$ , unless otherwise specified)

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



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