

TA7642 Radio IC

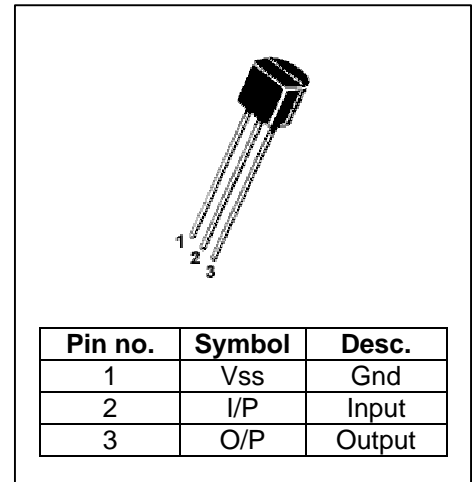
The TA7642 is an AM radio IC in a TO92 package which requires very few external components to make a complete pocket radio.

Features:

- low operating voltage – down to 1.3V
- low quiescent current – 0.2mA
- very few external components required

Maximum ratings:

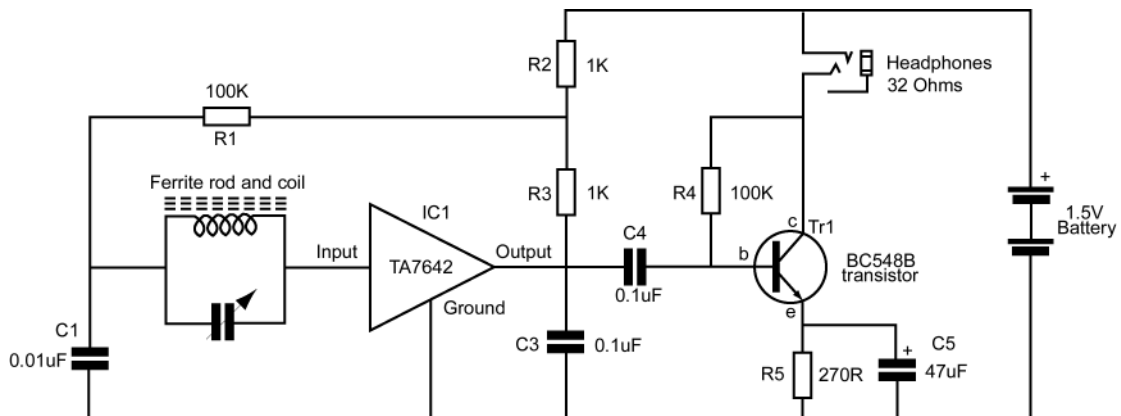
Parameters	Min.	Max.	Unit
Supply voltage		6	V
Operating temp.	-10	60	°C
Storage temp.	-55	150	°C



Electrical Characteristics:

Parameters	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	-	MΩ
Maximum sensitivity	S_M	$V_{OD} = 3mV$	-	600	-	μV
Detector output voltage	V_{OD}	$V_I = 10mV$	5	15	30	mV
AGC Range	A		-	30	-	dB

Example circuit:



The coil needs approximately 55 turns of 0.315 (30 SWG) of enamelled copper wire on a 100 x 10mm ferrite rod. A process of trial and error will help you achieve the optimum number of windings.

