

**SANYO**

No.1338C

**LA1180**Monolithic Linear IC  
FM FRONT END  
FOR RADIO-CASSETTE RECORDER USE

The LA1180 is an FM front end for radio-cassette recorder, music center use. It has a wide operating voltage range and provides a stable high gain. The on-chip AFC diode minimizes the number of external parts required.

**Functions**

. RF amp . MIX . OSC . AFC diode

**Features**

- . Wide operating voltage range
- . Stable high gain.
- . Minimum number of external parts required because of on-chip AFC diode.

**Maximum Ratings at Ta=25°C**

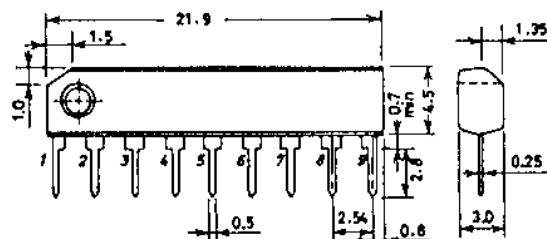
			unit
Maximum Supply Voltage	V <sub>CCmax</sub>	7	V
Maximum Pin Voltage	V <sub>3-5</sub> Pin3	10	V
	V <sub>6-5</sub> Pin6	10	V
	V <sub>7-5</sub> Pin7	10	V
Allowable Power Dissipation	P <sub>dmax</sub> Ta=25°C	100	mW
Operating Temperature	T <sub>opg</sub>	-20 to +80	°C
Storage Temperature	T <sub>stg</sub>	-40 to +125	°C

**Operating Conditions at Ta=25°C**

			unit
Recommended Supply Voltage	V <sub>CC</sub>	4	V
Operating Voltage Range	V <sub>CCop</sub>	1.8 to 6	V

**Operating Characteristics at Ta=25°C, V<sub>CC</sub>=4V, fr=83MHz, f<sub>OSC</sub>=72.3MHz, See specified Test Circuit.**

			min	typ	max	unit
Current Dissipation	I <sub>CC</sub> Quiescent			3	5	mA
Output Saturation Voltage	V <sub>o</sub> 100dBu		100	125	160	mVrms
Local Oscillation Voltage	V <sub>OSC</sub> V <sub>CC</sub> =2V		180	300		mVrms
Oscillation Stop Voltage	V <sub>stop</sub>		1.4	1.6		V

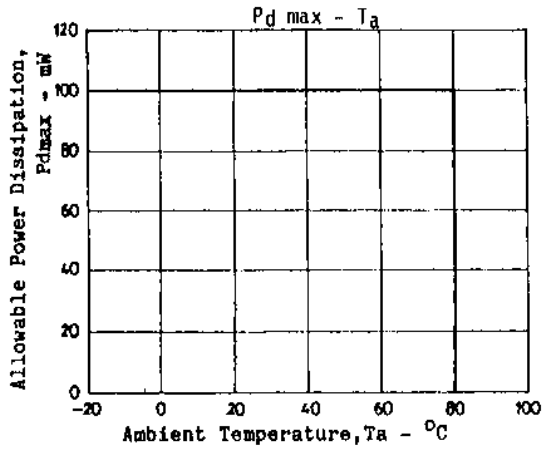
**Case Outline 3017B-S9IC**  
(unit:mm)

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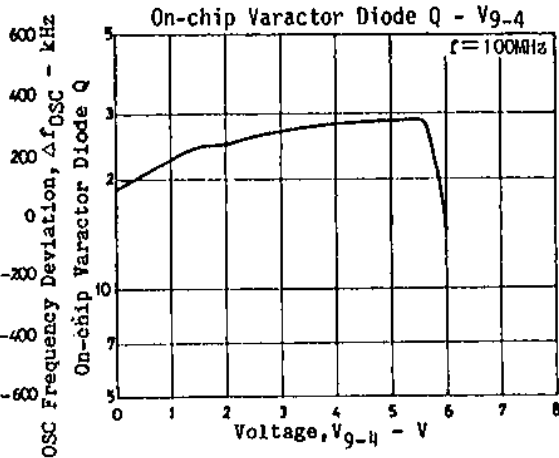
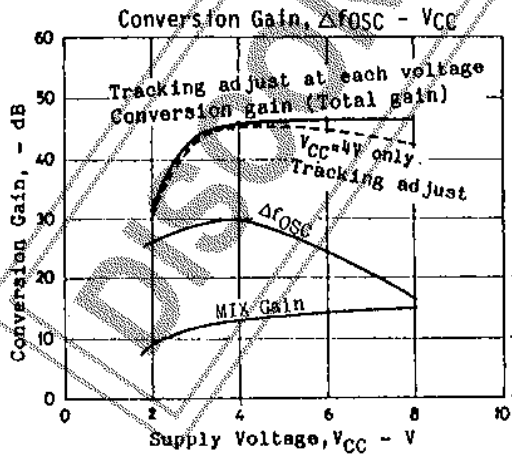
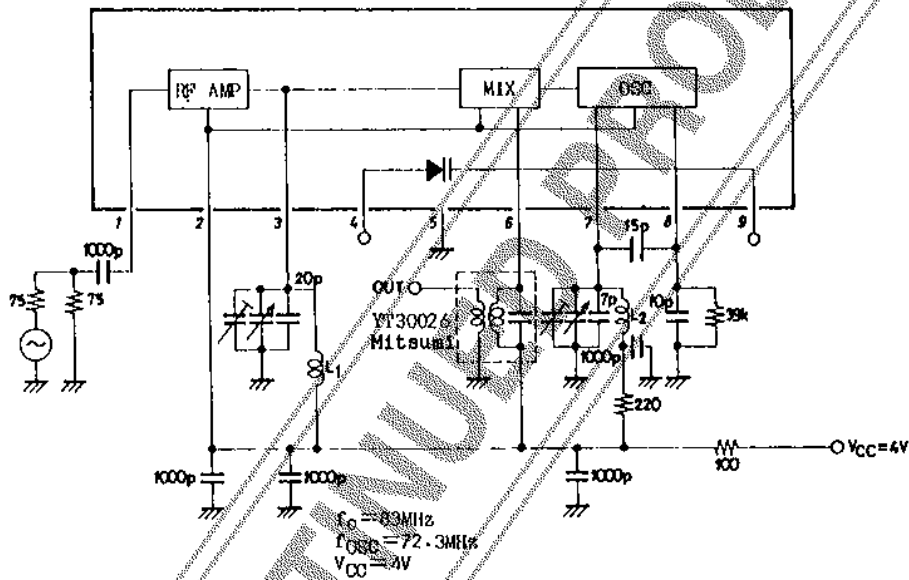
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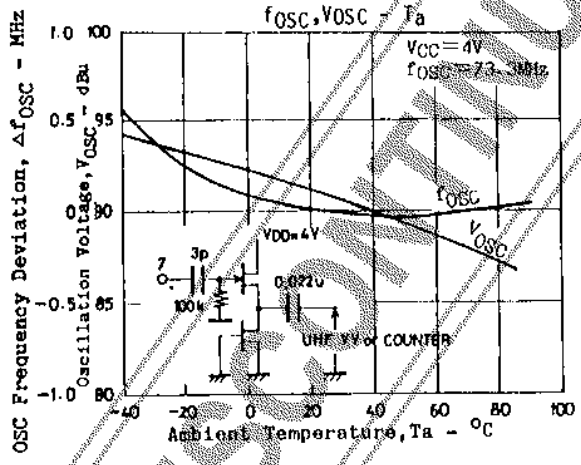
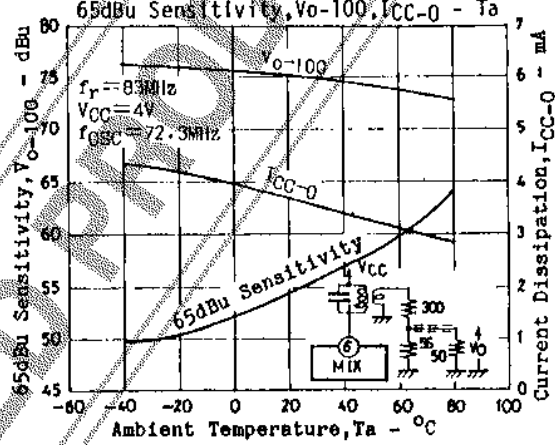
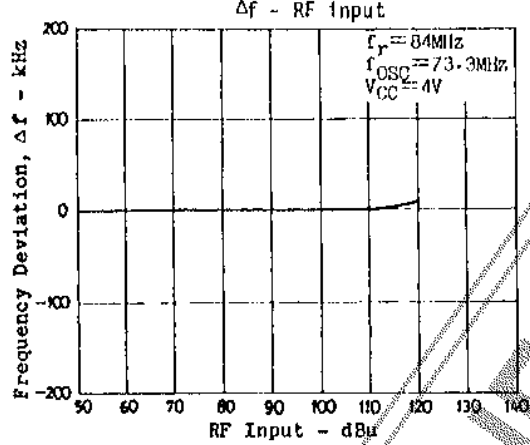
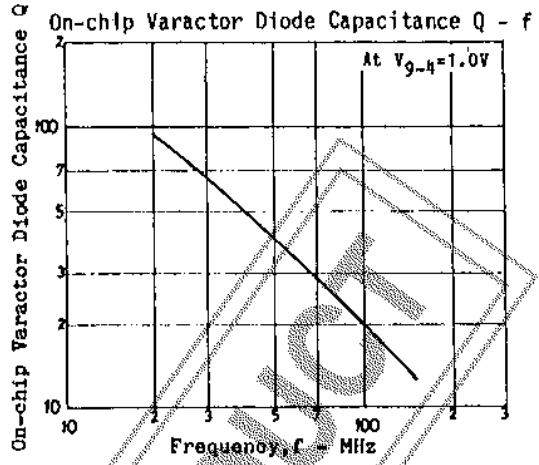
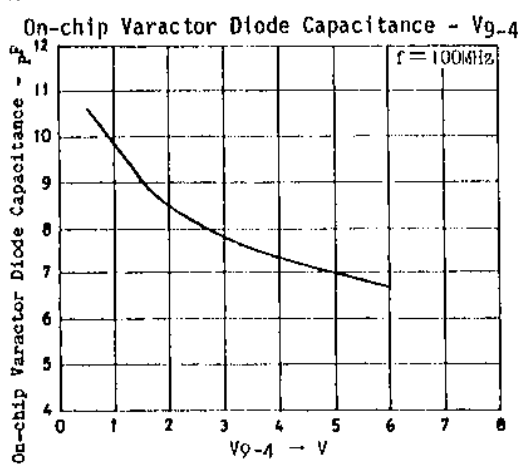
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D067KI/2146KI/N214MW/5303KI, TS No. 1338-1/4



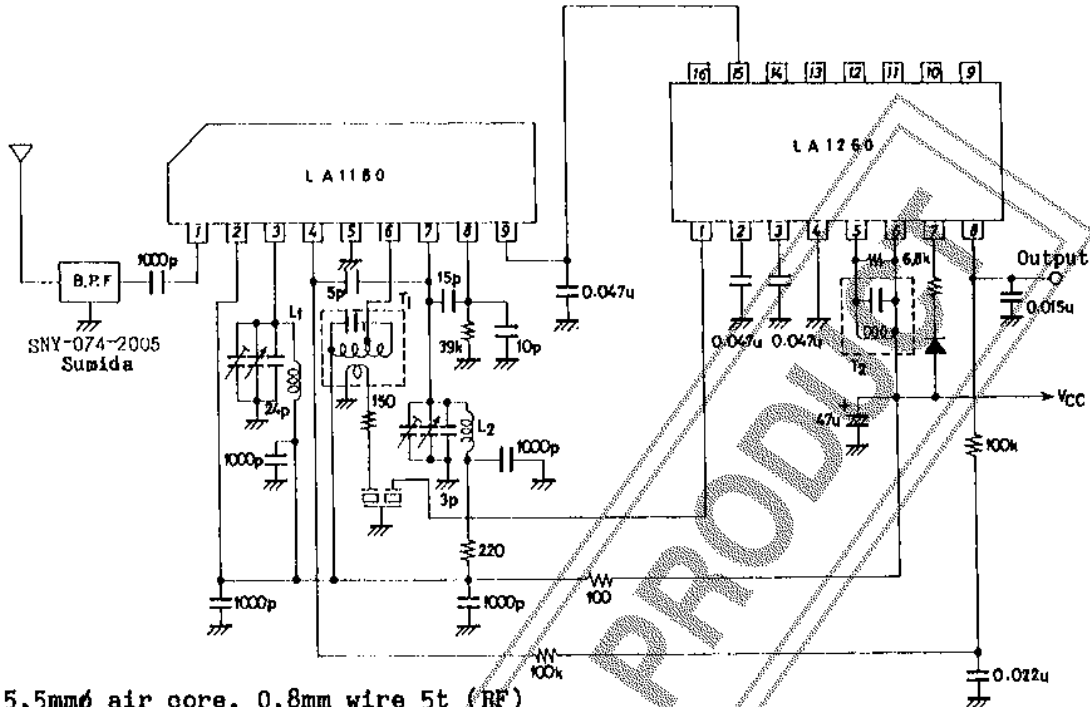
Test Circuit and Equivalent Circuit Block Diagram





LA1180

Sample Application Circuit: LA1180 + LA1260 FM Section (Japan Band)



- L1: 5.5mmø air core, 0.8mm wire 5t (RF)
- L2: 5.5mmø air core, 0.8mm wire 6t (OSC)
- T1: Mitsumi YT-30070
- T2: Mitsumi YT-30194
- Polystyrene film variable capacitor: PVC-22KTL
- ANT B.P.F: Sumida SNY-074-2005

