

**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=80°C	100	mW
Operating Temperature	T <sub>opg</sub>	-20 to +80	°C
Storage Temperature	T <sub>stg</sub>	-40 to +125	°C

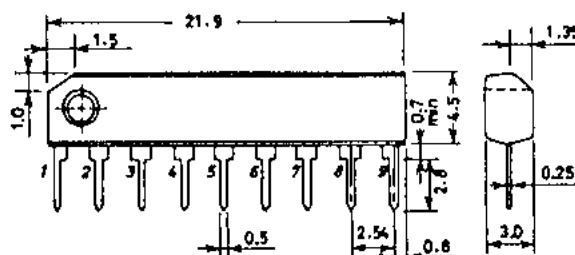
**Operating Conditions at Ta=25°C**

			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, f<sub>r</sub>=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)

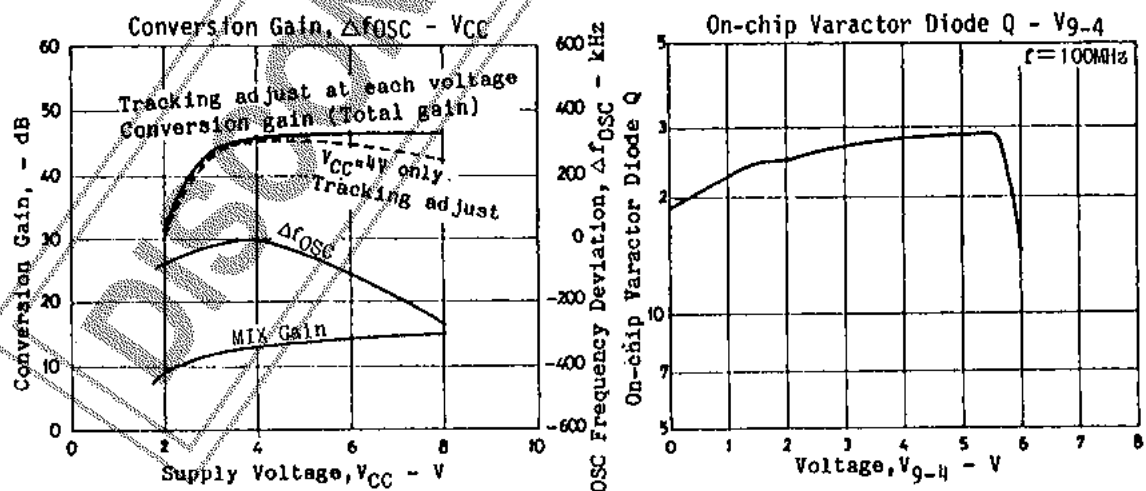


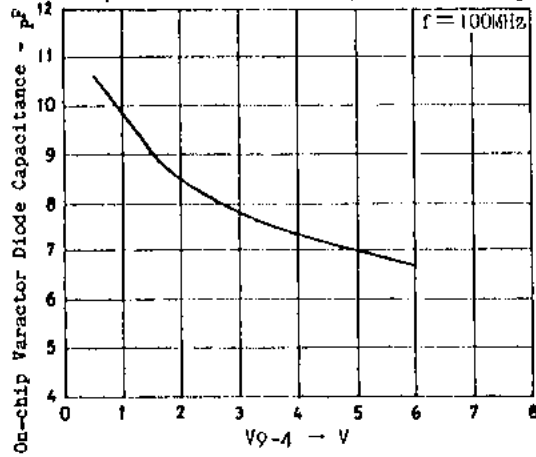
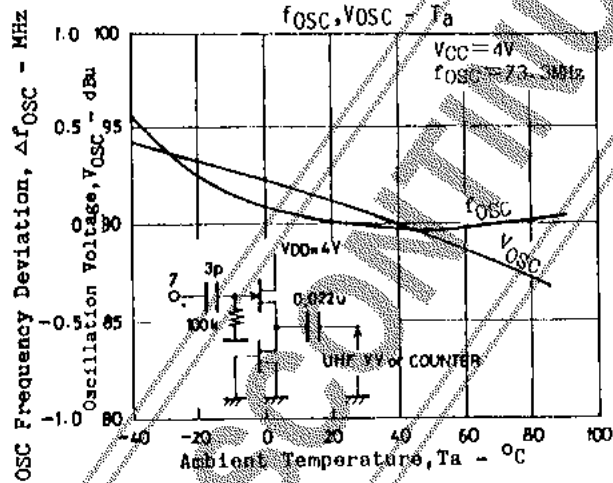
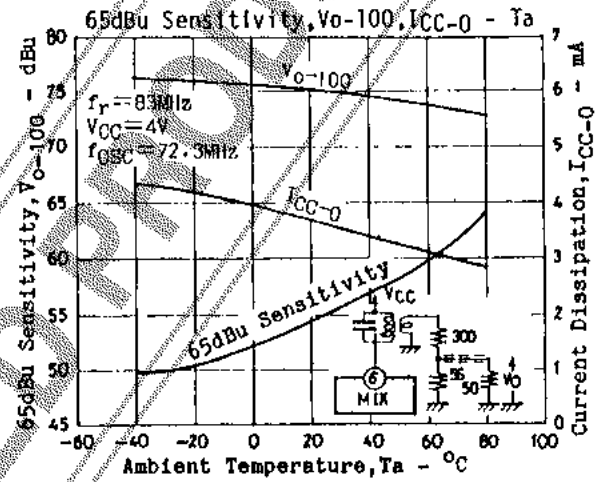
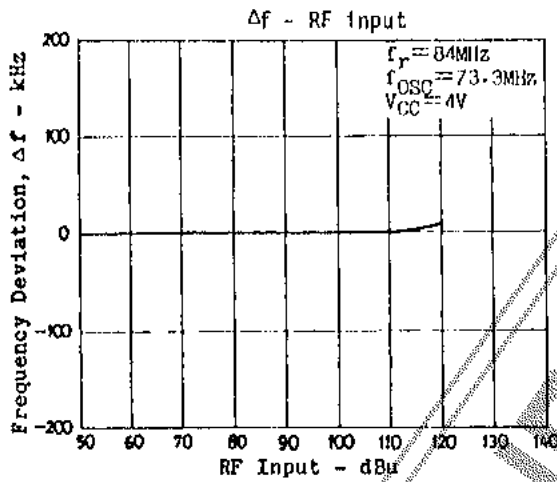
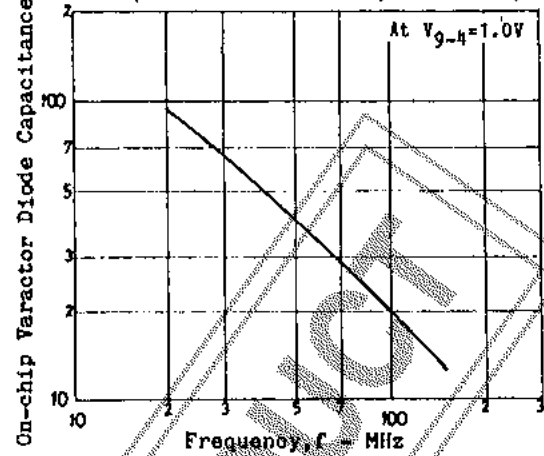
Information furnished by SANYO is believed to be accurate and reliable. However, no responsibility is assumed by SANYO for its use, nor for any infringements of patents or other rights of third parties which may result from its use, and no license is granted by implication or otherwise under any patent or patent rights of SANYO.

Specifications and information herein are subject to change without notice.

**SANYO Electric Co., Ltd. Semiconductor Overseas Marketing Div.**  
Natsume Bldg., 18-6, 2-chome, Yushima, Bunkyo-ku, TOKYO 113 JAPAN

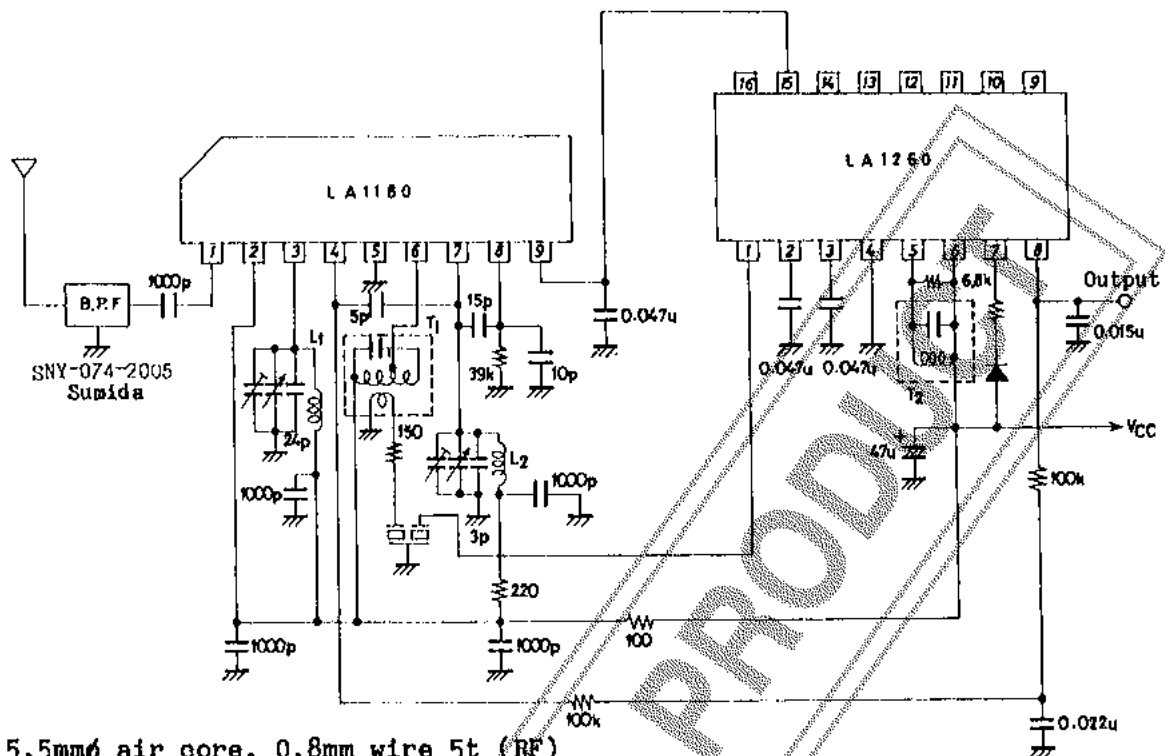
0067KI/2146KI/N214MW/5303KI, TS No.1338-1/4



On-chip Varactor Diode Capacitance -  $V_{g-4}$ On-chip Varactor Diode Capacitance  $Q - f$ 

# LA1180

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



L1: 5.5mm $\phi$  air core, 0.8mm wire 5t (RF)  
 L2: 5.5mm $\phi$  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

