

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 _{CCmax}	7	V
Maximum Pin Voltage	V ₃₋₅ Pin3 V ₆₋₅ Pin6 V ₇₋₅ Pin7	10 10 10	V
Allowable Power Dissipation	P _{Dmax} Ta=80°C	100	mW
Operating Temperature	T _{opg}	-20 to +80	°C
Storage Temperature	T _{stg}	-40 to +125	°C

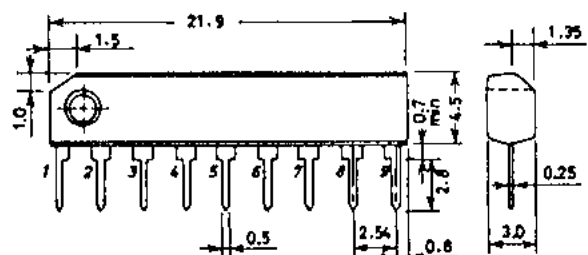
Operating Conditions at Ta=25°C

			unit
Recommended Supply Voltage	V _{CC}	4	V
Operating Voltage Range	V _{CCop}	1.8 to 6	V

Operating Characteristics at Ta=25°C, V_{CC}=4V, fr=83MHz, f_{OSC}=72.3MHz, See specified Test Circuit.

		min	typ	max	unit
Current Dissipation	I _{CC} Quiescent		3	5	mA
Output Saturation Voltage	V _o 100dBu	100	125	160	mVrms
Local Oscillation Voltage	V _{OSC} V _{CC} =2V	180	300		mVrms
Oscillation Stop Voltage	V _{stop}	1.4	1.6		V

Case Outline 3017B-S9IC
(unit:mm)

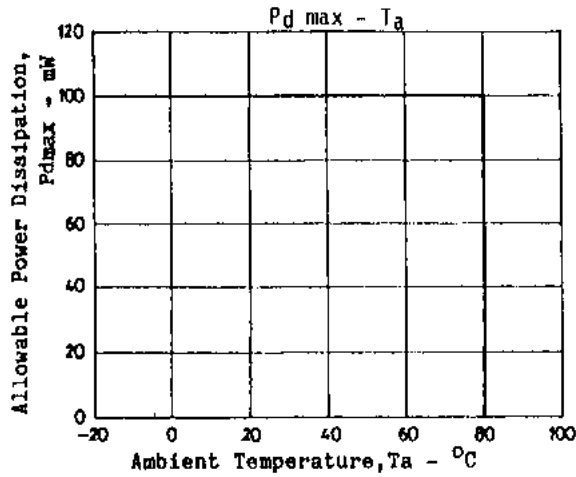


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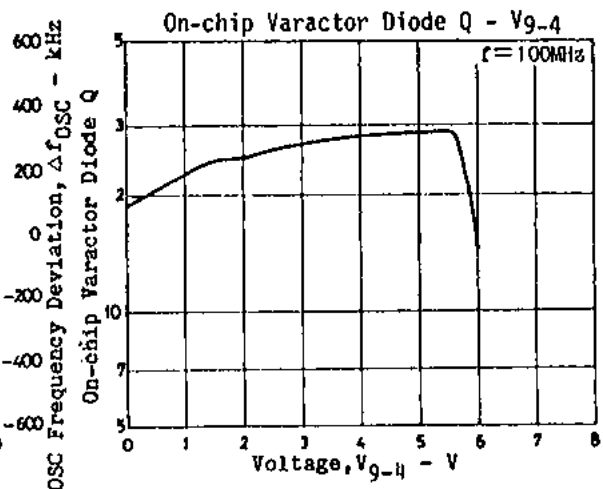
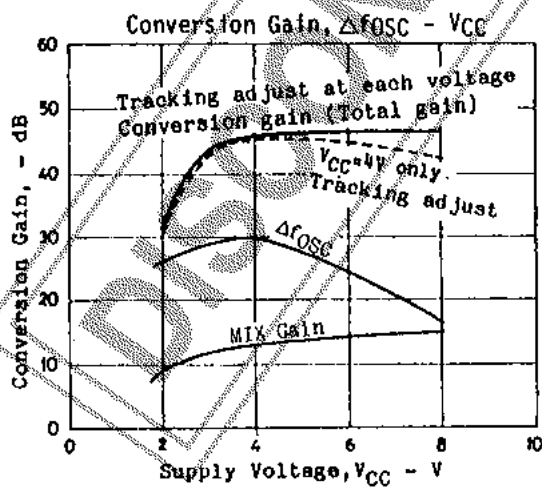
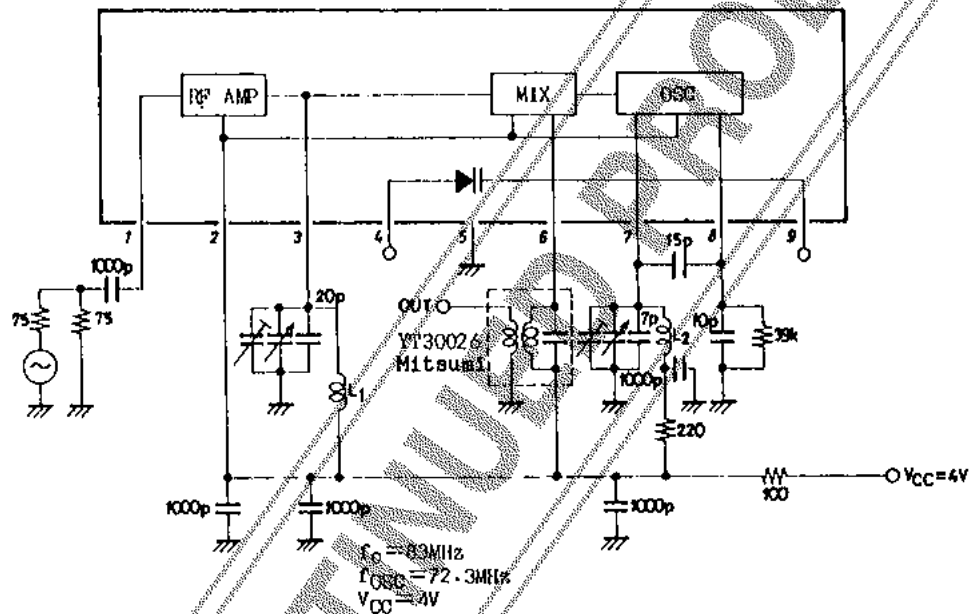
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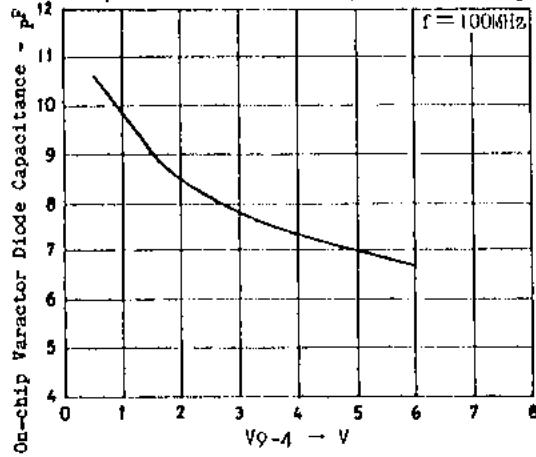
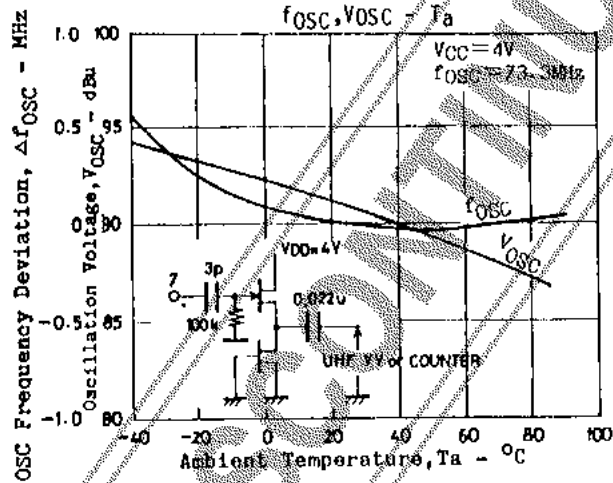
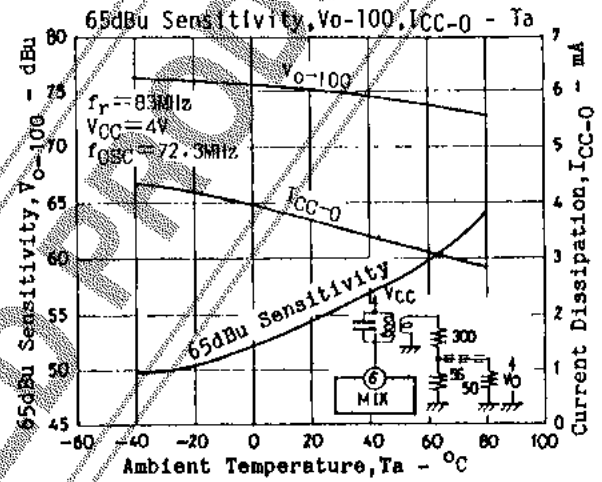
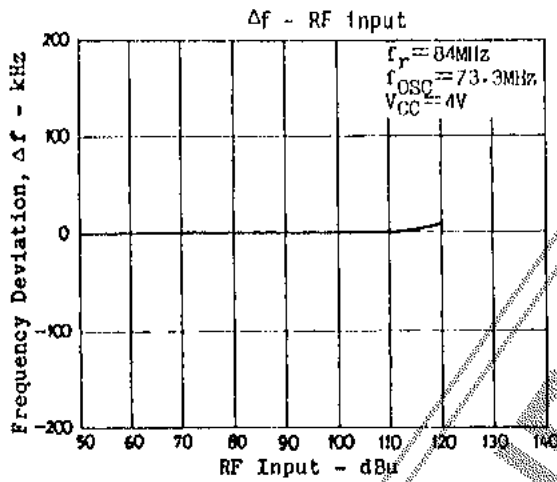
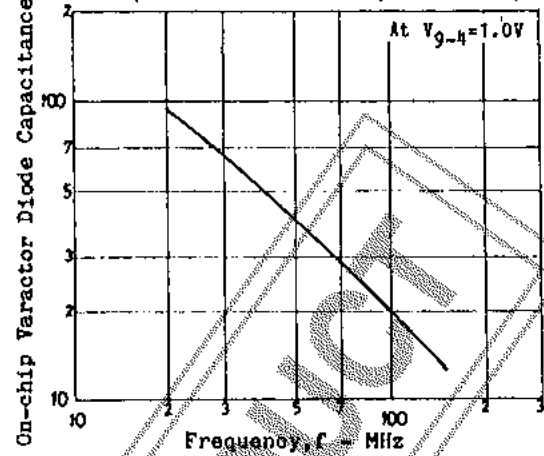
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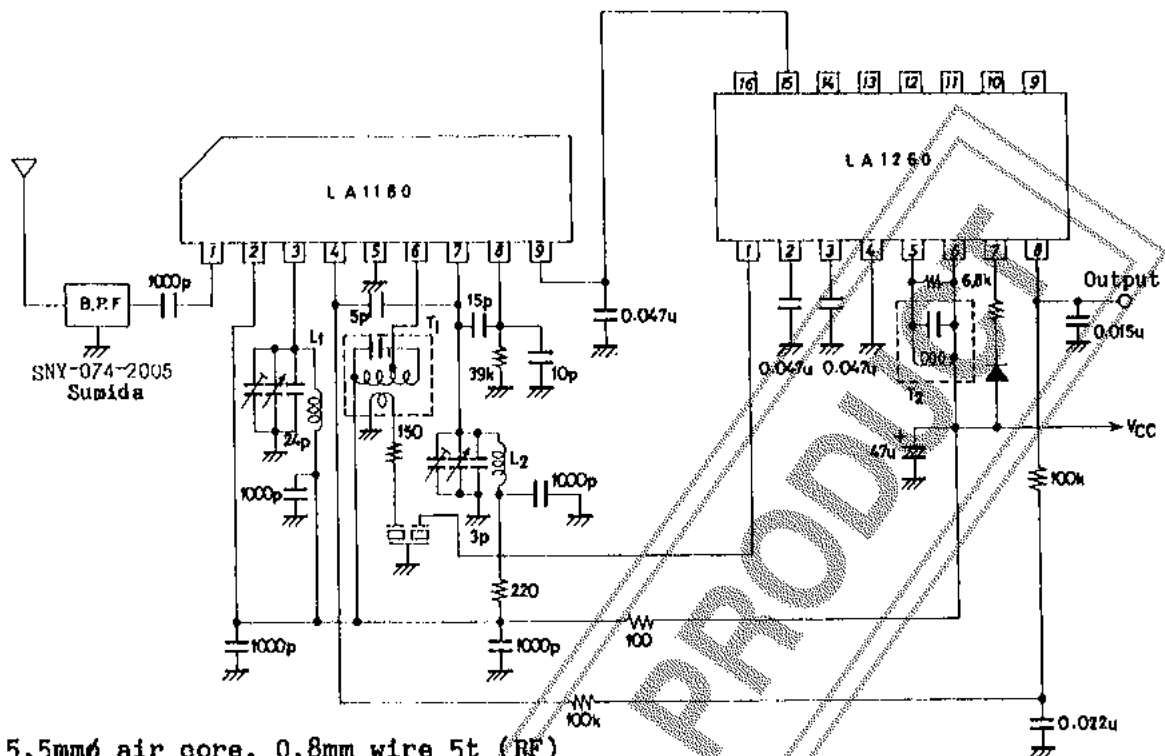
Test Circuit and Equivalent Circuit Block Diagram



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 ϕ air core, 0.8mm wire 5t (RF)
 L2: 5.5mm ϕ 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

