

LA1225MC

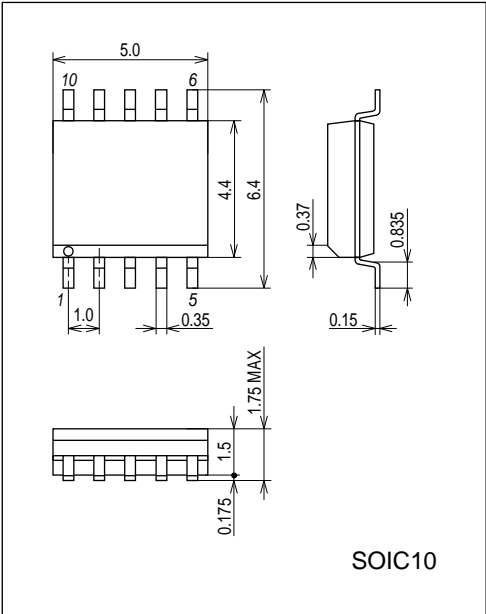
Operating Characteristics at $T_a = 25^{\circ}\text{C}$, $V_{CC} = 3.0\text{V}$, $f_C = 10.7\text{MHz}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Current drain	I_{CCO}	No input	3.0	4.0	5.0	mA
Demodulator output	V_O	100dB μV , 100% mod., $f_m = 1\text{kHz}$	70	150	220	mV
Total harmonic distortion	THD	100dB μV , 100% mod., $f_m = 1\text{kHz}$		0.5	0.8	%
Signal-to-noise ratio	S/N	100dB μV , 100% mod., $f_m = 1\text{kHz}$	65	73		dB
3dB sensitivity	-3dBL.S	100dB μV , 100% mod., $f_m = 1\text{kHz}$ output reference, when the input is -3dB	19	28	37	dB μV
SD sensitivity	SD_{ON}	0% mod.	35	50	65	dB μV
IF counter buffer output	V_{IFBuff}	100dB μV	90	130	170	mV

Package Dimensions

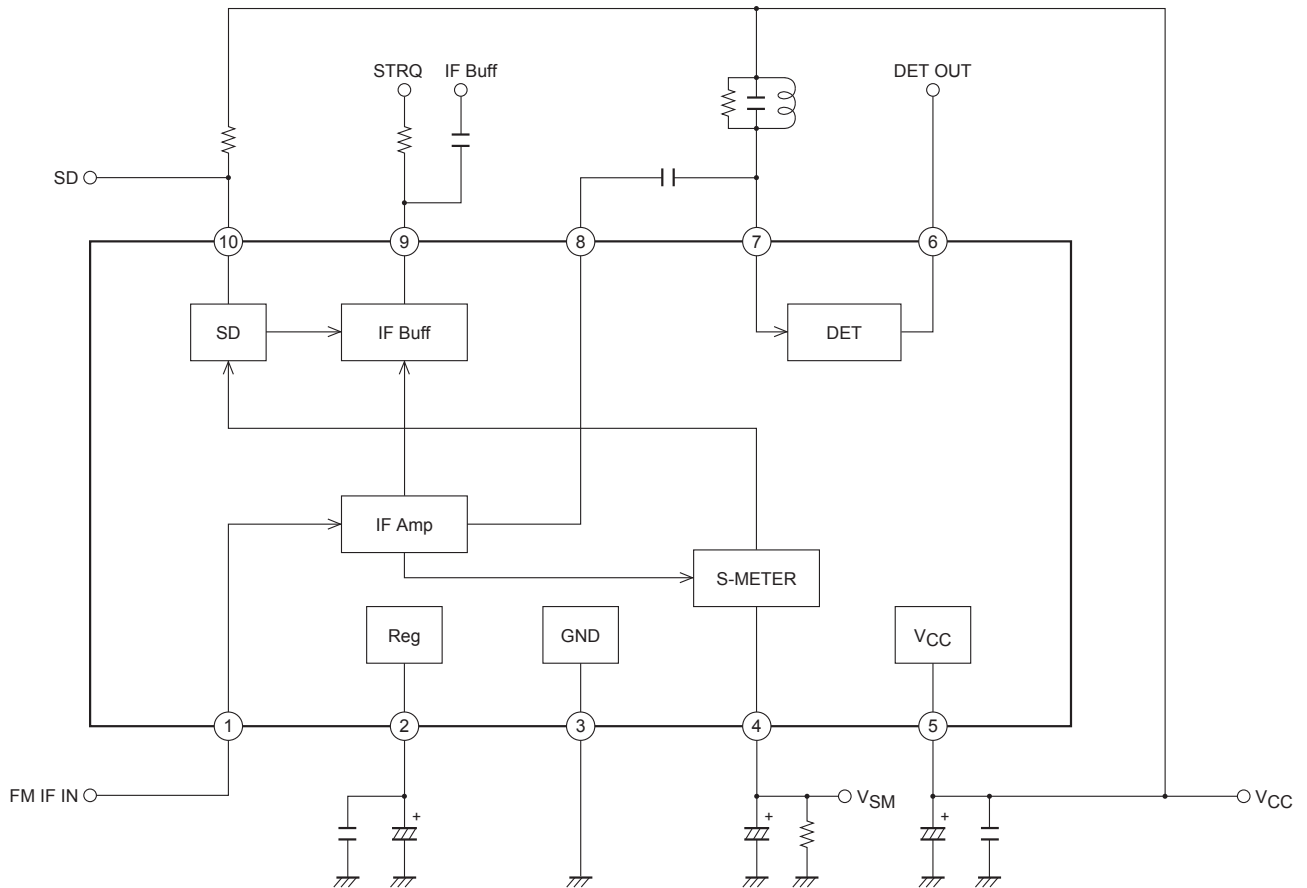
Unit : mm

3426

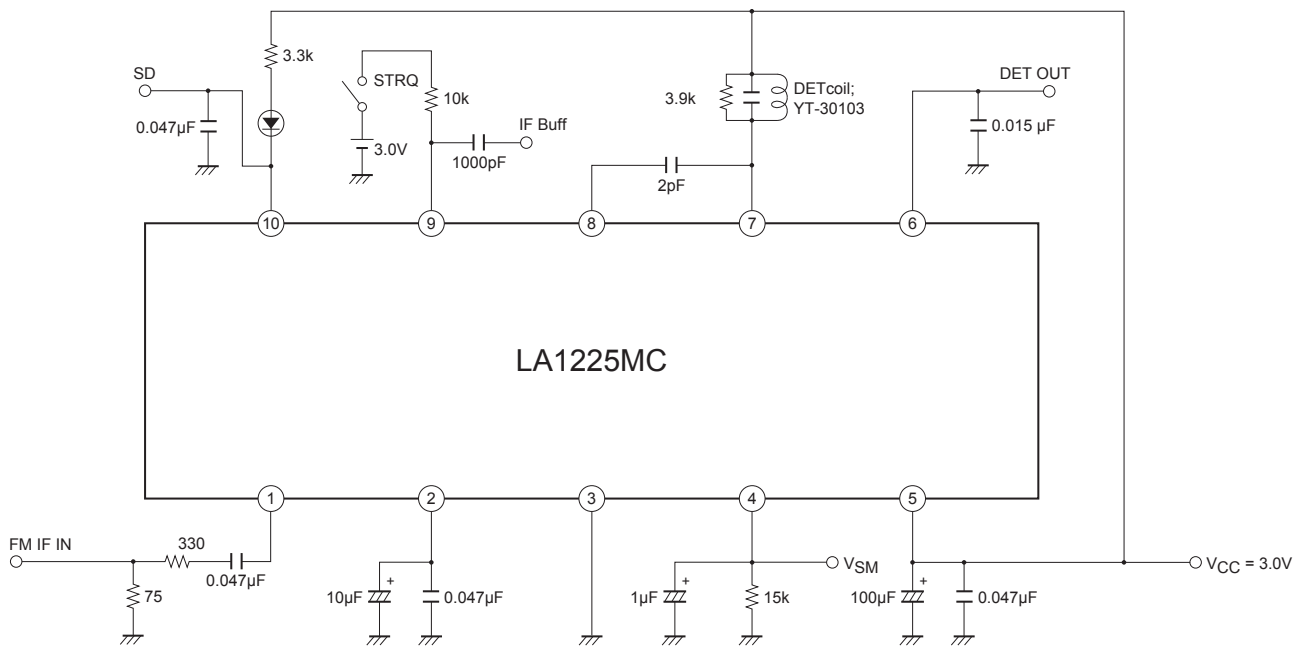


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Block Diagram and Test Circuit

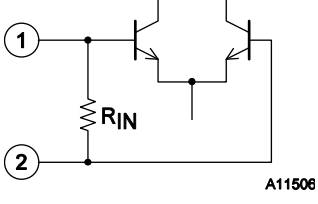
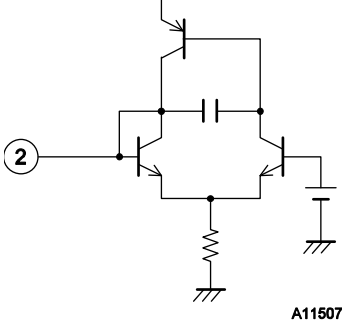
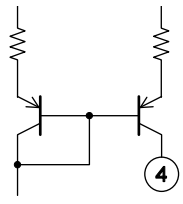
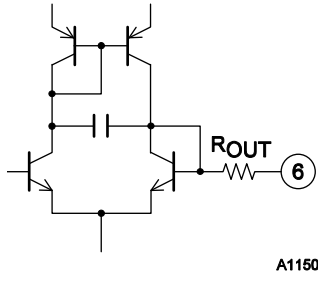
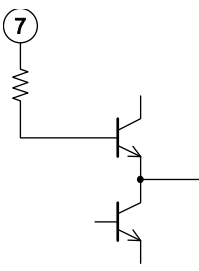


Sample Application Circuit



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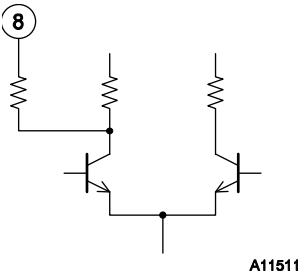
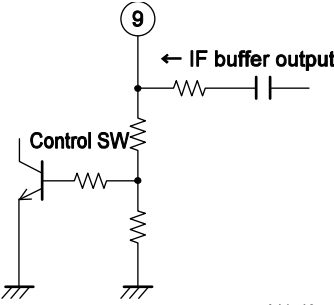
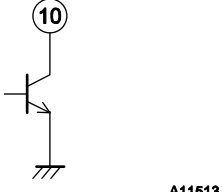
Pin Functions No-Signal Voltage at $V_{CC} = 3.0V$

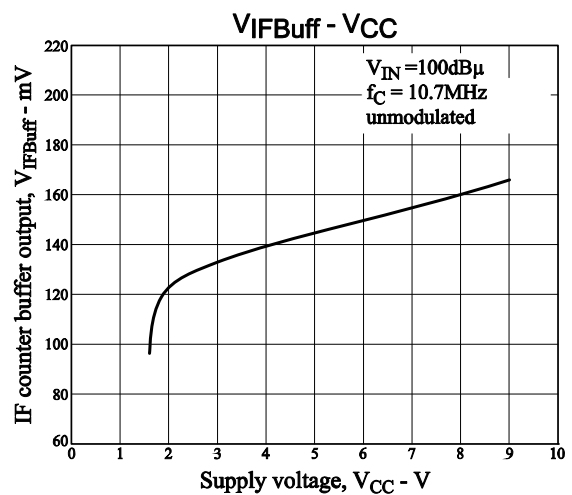
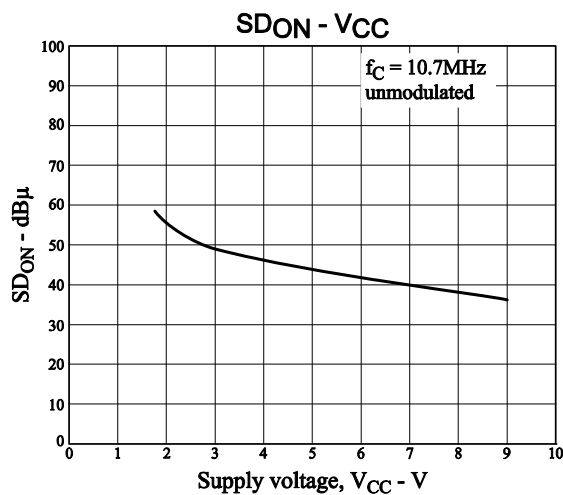
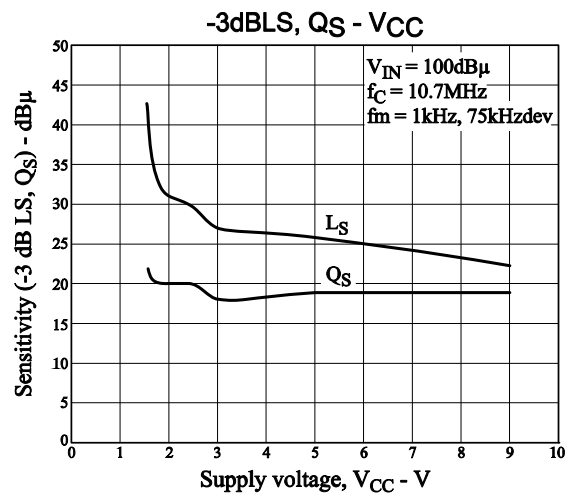
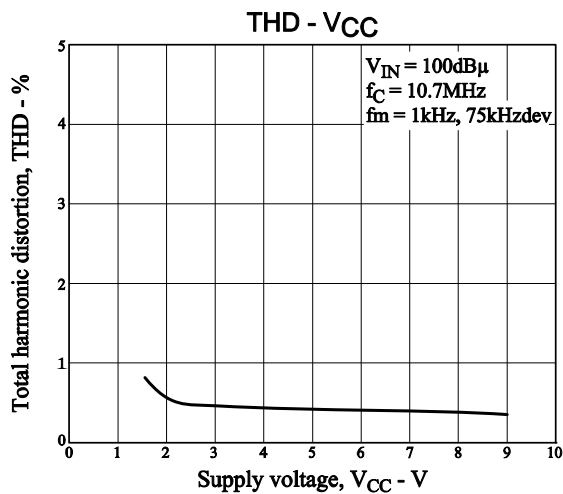
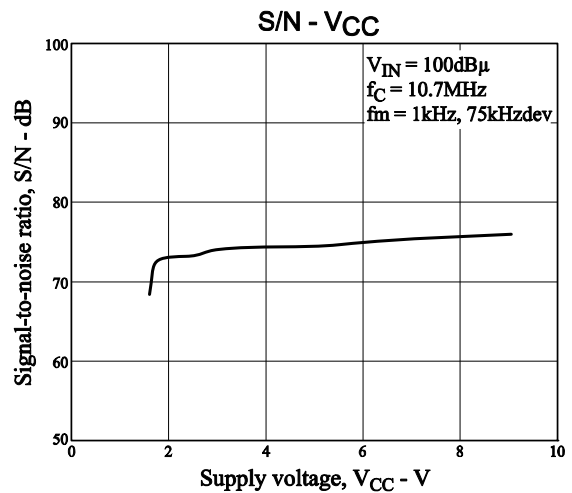
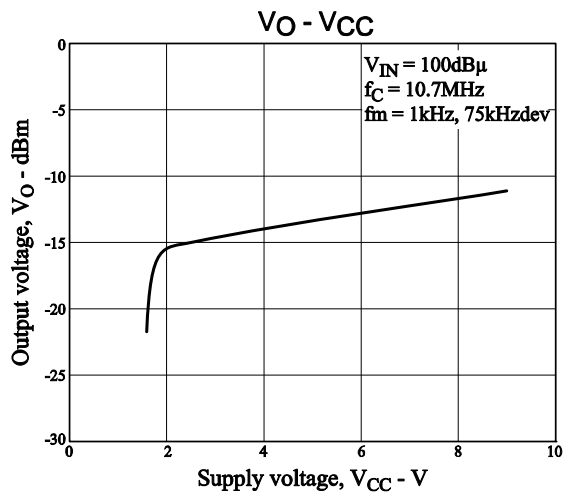
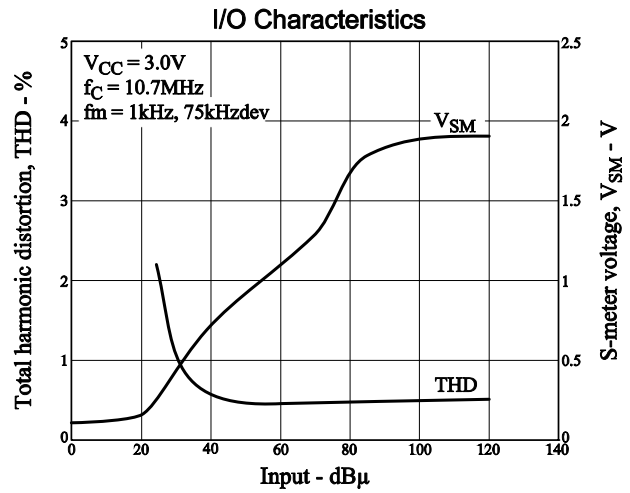
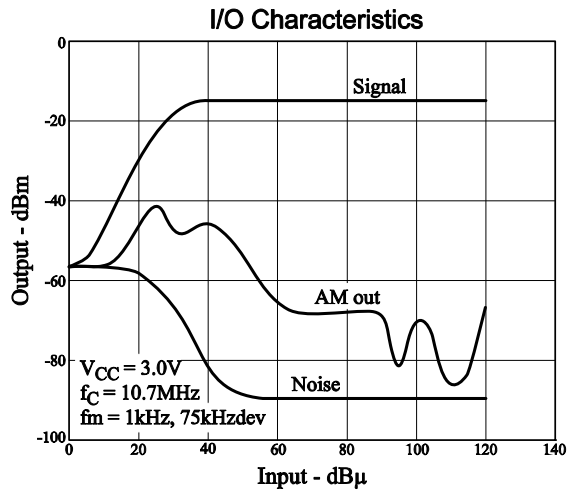
Pin No.	Function	No-signal voltage (V)	Equivalent circuit	Notes
1	IF input	1.2		Input impedance $R_{IN} = 330\Omega$
2	Reg	1.2		$V_{reg} = 1.2V$
3	GND	0		
4	S-meter output	0.1		Open collector output. The SD sensitivity can be adjusted with an external resistor connected to this pin.
5	V_{CC}	3.0		
6	Demodulated output	1.5		Output impedance $R_{OUT} = 3k\Omega$
7	DET	3.0		The detector coil is inserted between pin 7 and pin 5 (V_{CC}).

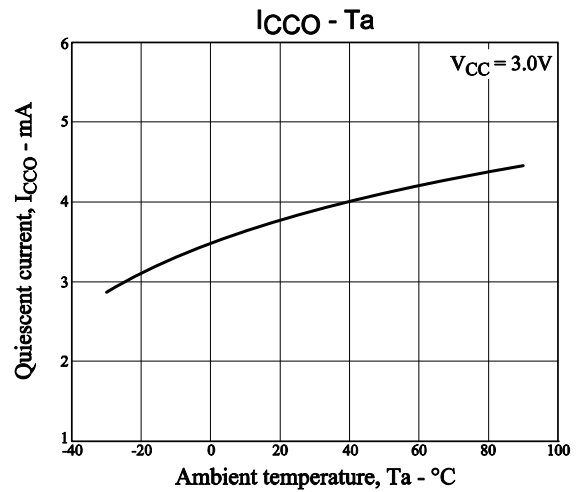
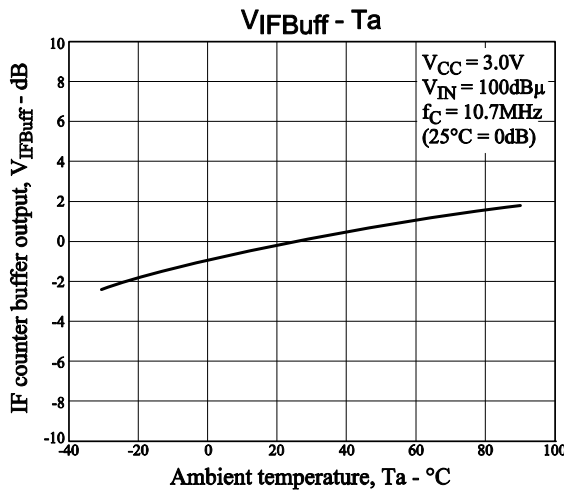
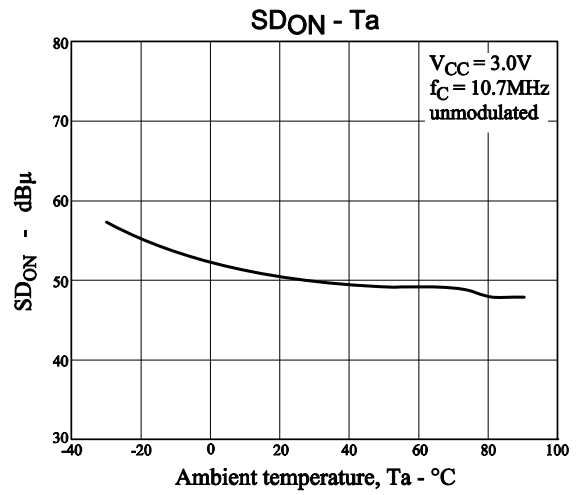
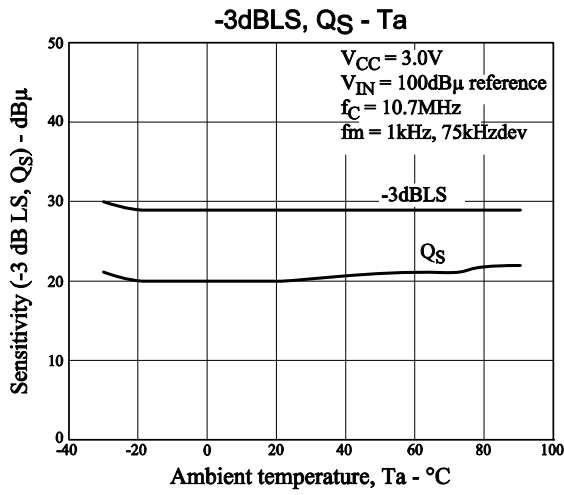
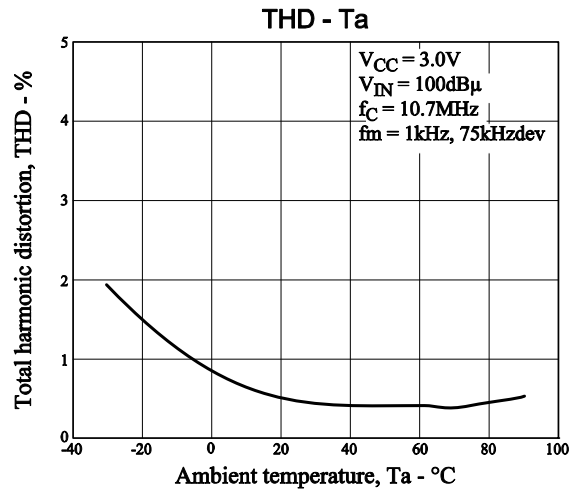
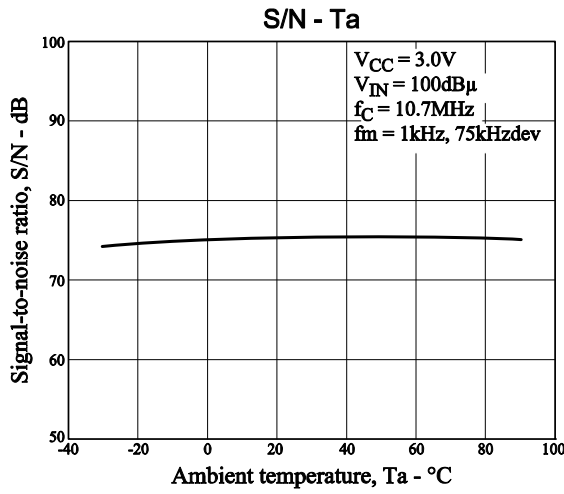
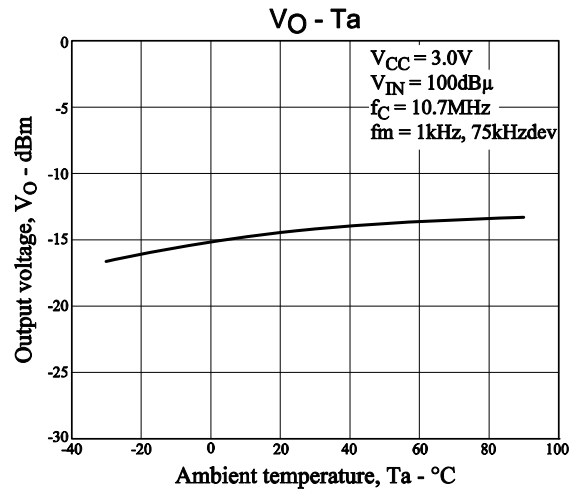
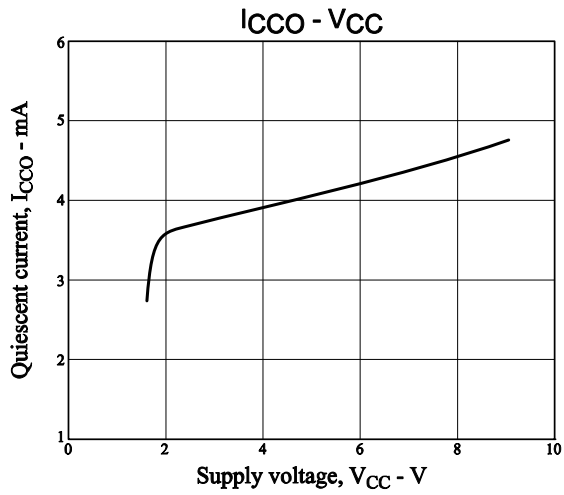
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Pin No.	Function	No-signal voltage (V)	Equivalent circuit	Notes
8	Limiter amplifier output	2.8	 A11511	Pin 8 and pin 7 (DET) are connected through a capacitor.
9	IF buffer (Also used for control SW)	0	 A11512	The IF buffer output is turned on when the voltage applied to the pin is the recommended 1.5V or higher.
10	SD	1.6	 A11513	This is an active-low output. This is an open-collector output and can directly drive an LED. ($I_{Cmax} = 20mA$)





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