



FEATURES	APPLICATIONS
<ul style="list-style-type: none"> <li>■ Single + 5 V Supply</li> <li>■ 10 k Ohm Transresistance</li> <li>■ Low Noise: 3.75 pA/√Hz</li> <li>■ 450 MHz Analog Bandwidth</li> <li>■ Wide Dynamic Range: 40 dB Electrical</li> <li>■ Automatic Gain Control (AGC)</li> <li>■ - 32 dBm Sensitivity</li> <li>■ Low Pulse Width Distortion</li> </ul>	<ul style="list-style-type: none"> <li>■ Sonet OC-9 &amp; OC12 Receiver</li> <li>■ BISO</li> <li>■ Workstation Interconnects</li> <li>■ Wideband Gain Block</li> <li>■ Low Noise RF Amplifier</li> </ul>

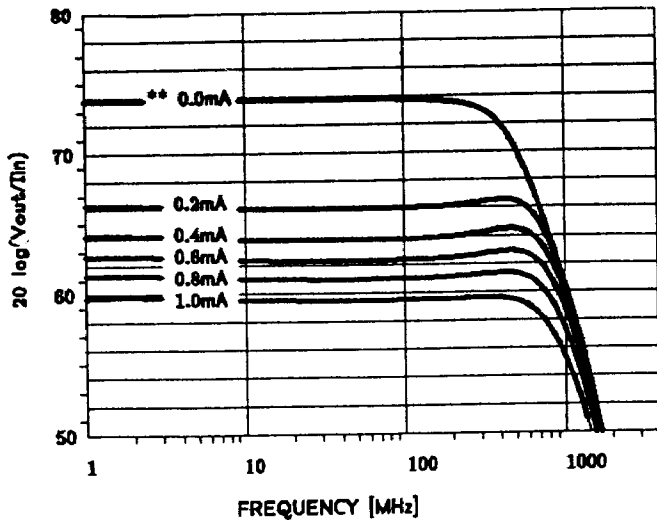
ELECTRICAL SPECIFICATIONS (T<sub>A</sub> = 25°C, V<sub>DD</sub> = +5V, C<sub>DIODE</sub> + C<sub>STRAY</sub> = 0.4 pF Responsivity = 0.7 A/W (PIN) )

DC CHARACTERISTICS	MIN	TYP	MAX	UNITS
Transresistance (R <sub>L</sub> = ∞ , I <sub>DC</sub> < 300 nA)		10		k Ohms
Input Impedance		280		Ohms
Input FET Leakage Current		10		nA
Supply Current I <sub>DD</sub>	15	35	45	mA
AGC Threshold (Input Current)		100		μ A
Output Drive Current Source/Sink		5		mA
Output Offset Voltage		+ 1.8		V
Offset Voltage Drift		± 1		mV/°C
Input Bias Voltage	+ 1.5	+ 1.7	+ 2.4	V
Operating Temperature Range	- 40		+ 85	° C
Operating Voltage Range V <sub>DD</sub>	+ 4.5	+5.0	+ 6.0	V

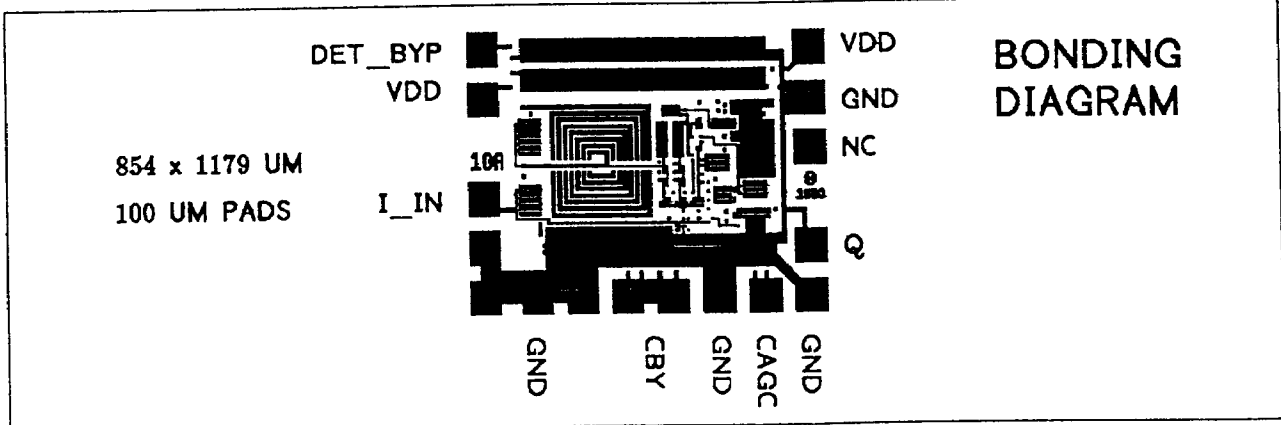
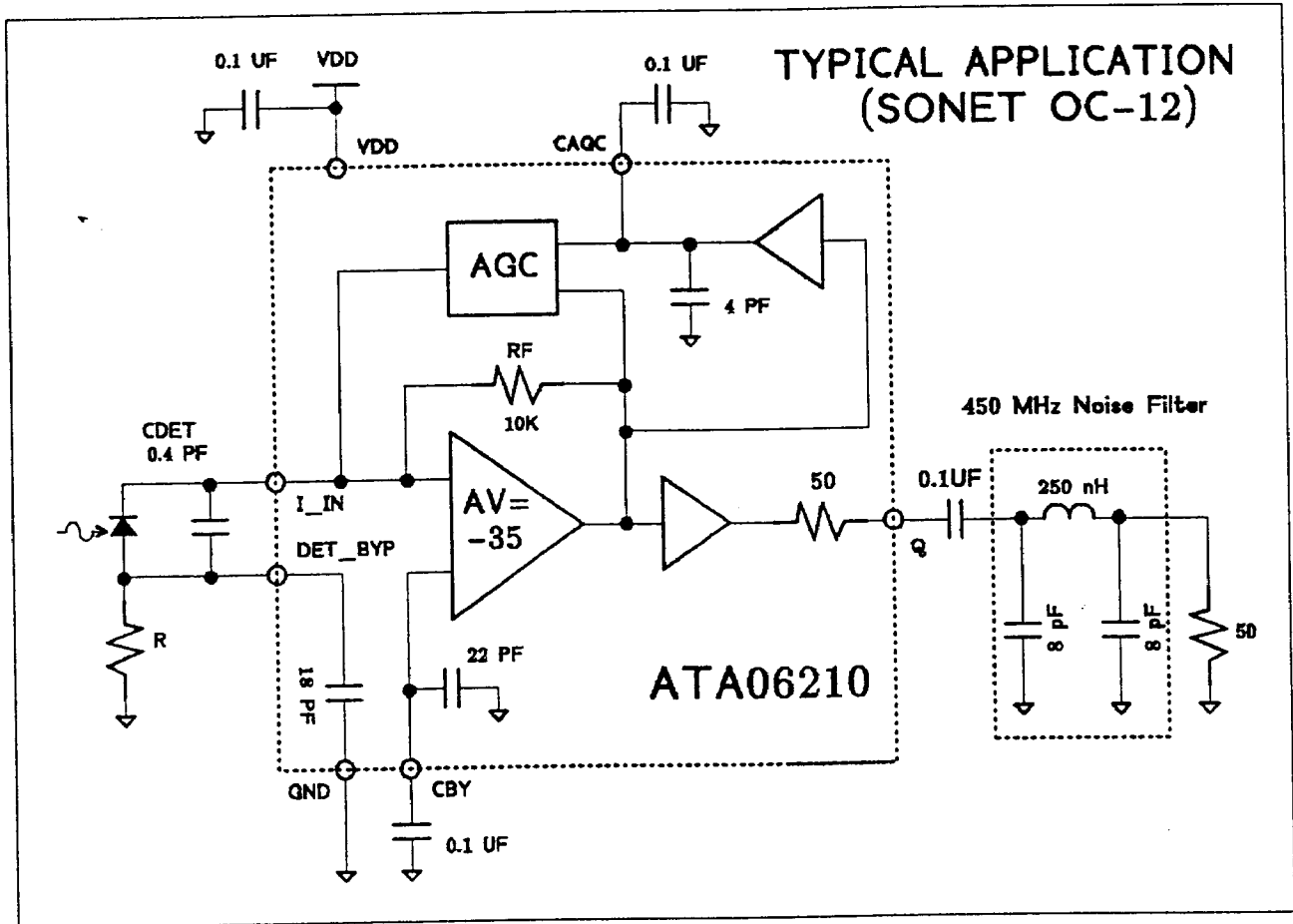
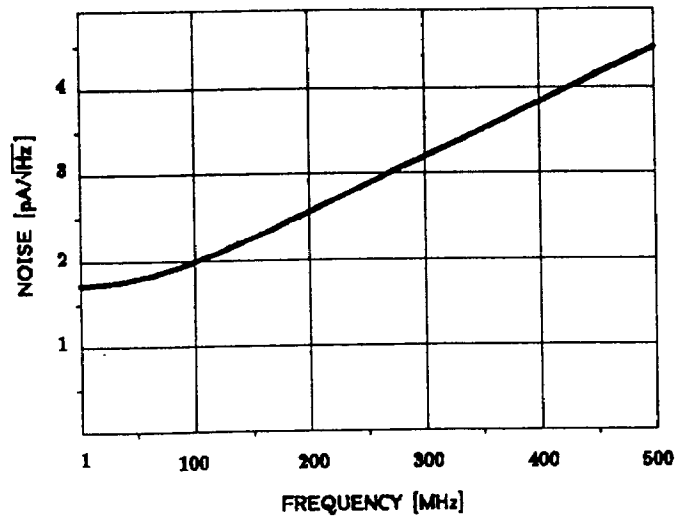
AC CHARACTERISTICS	MIN	TYP	MAX	UNITS
Transresistance RL = 50Ω		4		k Ohms
Input Capacitance - Die ATA06210D1C		0.4		pF
Bandwidth - 3dB	450	600		MHz
Output Impedance		50		Ohms
Input Noise Spectral Density, 1 MHz - 450 MHz		3.7	4.5	pA/√Hz
Input Noise Current, 10 KHz - 450 MHz		54		nA RMS
Optical Overload *	- 6	- 3		dBm
Optical Sensitivity @ 10 <sup>-9</sup> BER	- 31	- 32		dBm
AGC Time Constant, T <sub>DC</sub> = .1mA Step C <sub>AGC</sub> = .1 μ F		10		mS

\* Other values available

TRANSIMPEDANCE \*



NOISE SPECTRAL DENSITY \*



\* RL=50 OHMS, NO NOISE FILTER

\*\* I<sub>dc</sub> is the average value of photodiode current

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