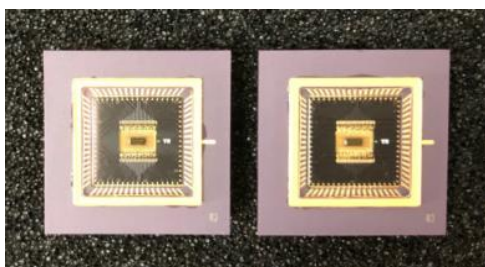


InGaAs avalanched photodiode

Array (1*32)



Description

The backside-illuminated operation of the IGA32-APD array
Provide both higher responsivity and lower capacitance than
Competing frontside-illuminated APD arrays.

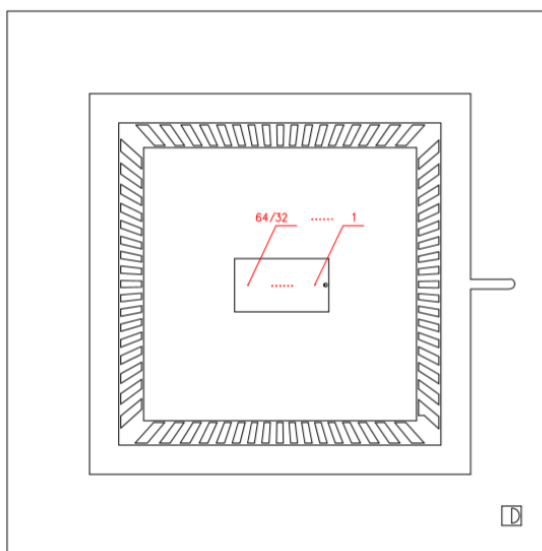
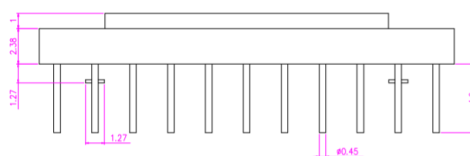
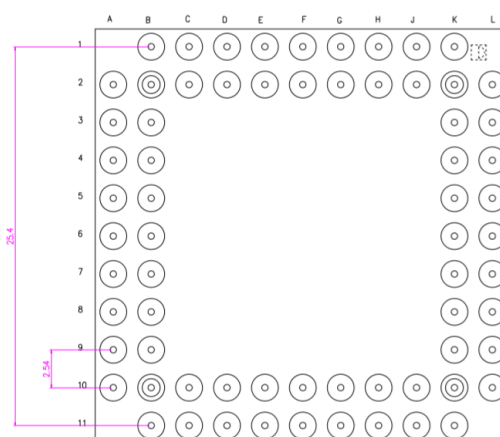
OTRON IGA32-APD is custom engineered for reduced excess Noise, which allows this APD array to achieve higher sensitivity, Better signal-to-noise performance, and lower bit error rates Than conventional APD arrays.

Features

- * Low-capacitance high sensitivity back-side illuminated design
- * 950-1700nm response
- * Reduced excess noise design from conventional APDs
- * Operation up to a multiplication gain of $M=20$
- * Custom devices available upon request

Applications

- * Laser range finder, Lidar
- * High speed optical communications
- * Laser scanner



NOTES:

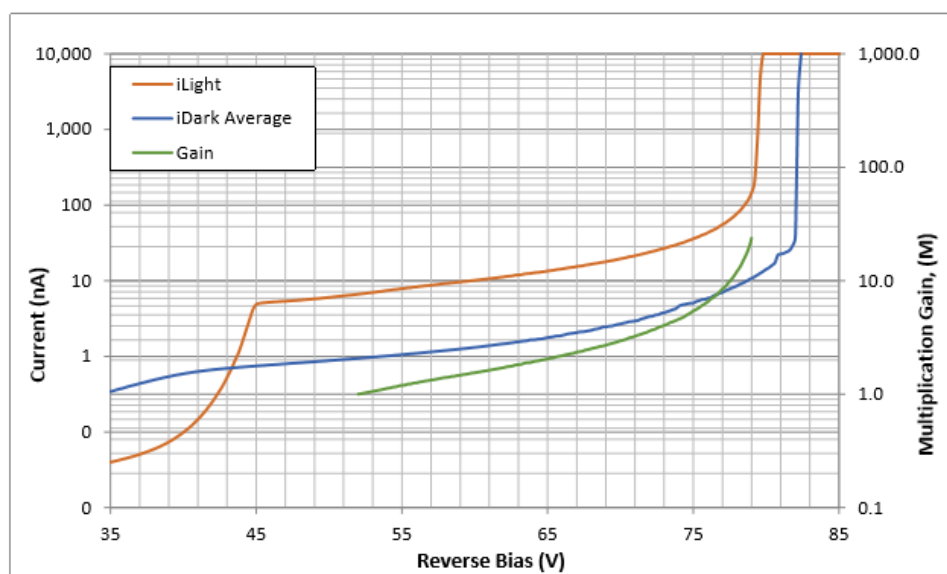
All dimension are in millimeters.

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Specifications are subject change without notice

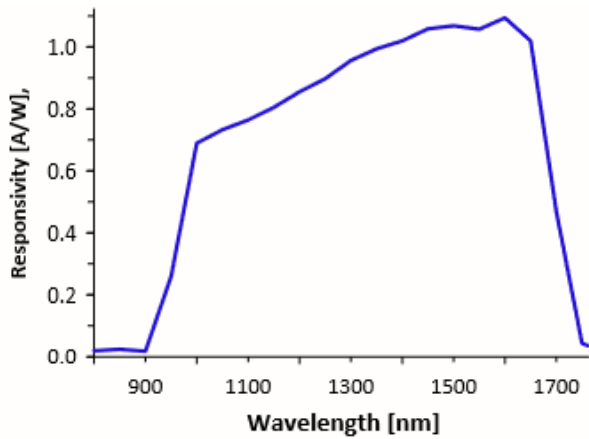
Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Active diameter	A		24*75			um/pixel
Gap/ Separation (center to center)			48			um
Pitch		Element to element	24			um
Operating Gain	M		1	10	75	
Quantum Efficiency(1550nm)			80%		85%	
Fill Factor				55%		
Bandwidth				2.5		GHz
Reverse breakdown voltage	V _(BR)	I _R =100μA Ev=0Ix, Id>0.1mA, T=294K	65		80	V
ΔV _{br} /ΔT				29		mV/K
Junction Capacitance	C _J	M>3, V _R =V _{BR} *0.9, f=1M		721		pF
Photo sensitivity@M=10	S _R	λ _p =1.55um, M=10	9.1	10.1	10.4	A/W
		λ _p =1.064um, M=10	6.6	7.3	7.8	
Spectral Application Range	λ _{range}		950	1000-1600	1750	nm
Spectral Response-Peak	λ _p			1064-1550		nm
Excess Noise Factor		M=10		1.7		
Noise Spectral Density		M=10		0.37		PA/√Hz
Dark Current		M=10, T=298K		70		nA
Operation Voltage	V	0.9*V _(BR)				
Max. Instantaneous Input Power		10nS, 1064nm signal at a 20Hz PRF with M=10			128	mW/pixel

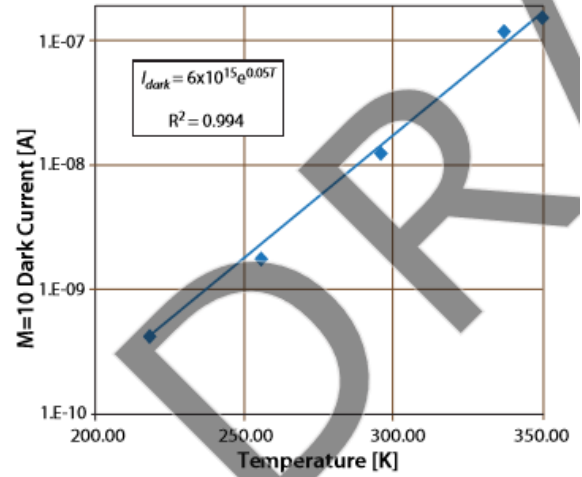


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Specifications are subject change without notice

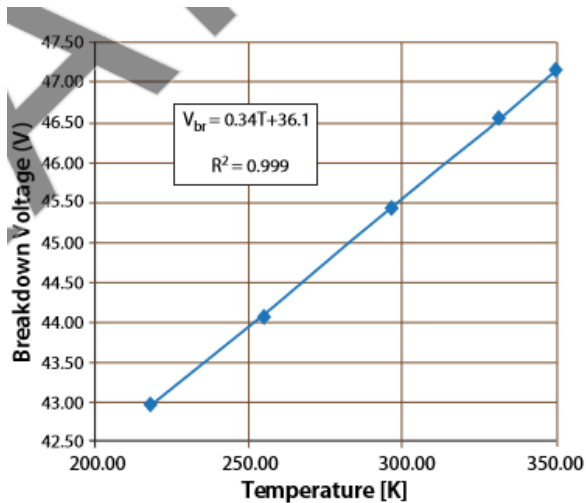
■ Spectral response (M=10)



■ Dark current VS. Temperature



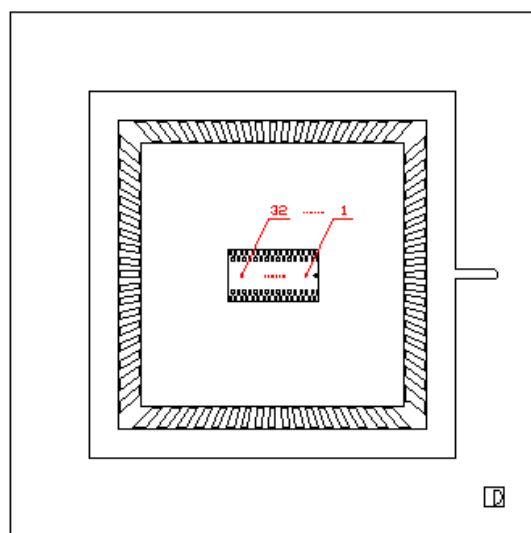
■ Breakdown Voltage vs. Temperature (M=10)



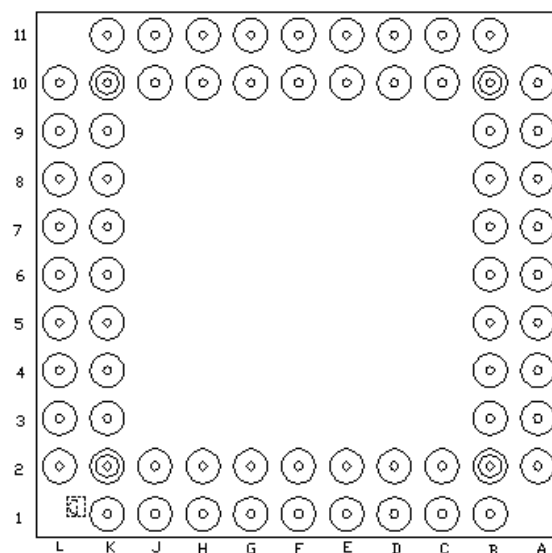
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PIN LEGS:

PIN No.	Pix No.	PIN No.	Pix No.	PIN No.	Pix No.	PIN No.	Pix No.
K2	NC	K10	2	B10	NC	B2	31
L2	NC	K11	4	A10	NC	B1	29
K3	NC	J10	6	B9	NC	C2	27
L3	NC	J11	8	A9	NC	C1	25
K4	NC	H10	10	B8	NC	D2	23
L4	NC	H11	12	A8	NC	D1	21
K5	NC	G10	14	B7	NC	E2	19
L5	NC	G11	16	A7	NC	E1	17
K6	VH	F10	NC	B6	NC	F2	NC
L6	NC	F11	18	A6	NC	F1	15
K7	NC	E10	20	B5	NC	G2	13
L7	NC	E11	22	A5	NC	G1	11
K8	NC	D10	24	B4	NC	H2	9
L8	NC	D11	26	A4	NC	H1	7
K9	NC	C10	28	B3	NC	J2	5
L9	NC	C11	30	A3	NC	J1	3
L10	NC	B11	32	A2	NC	K1	1



32_1_PGA68 主视图



右后视图

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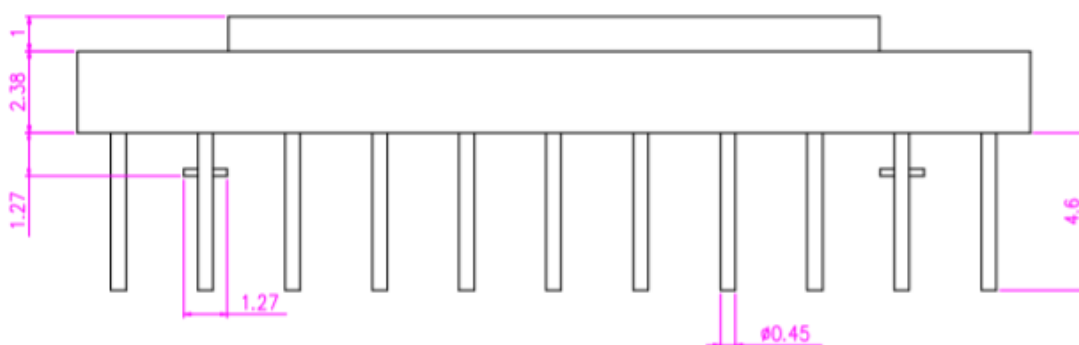
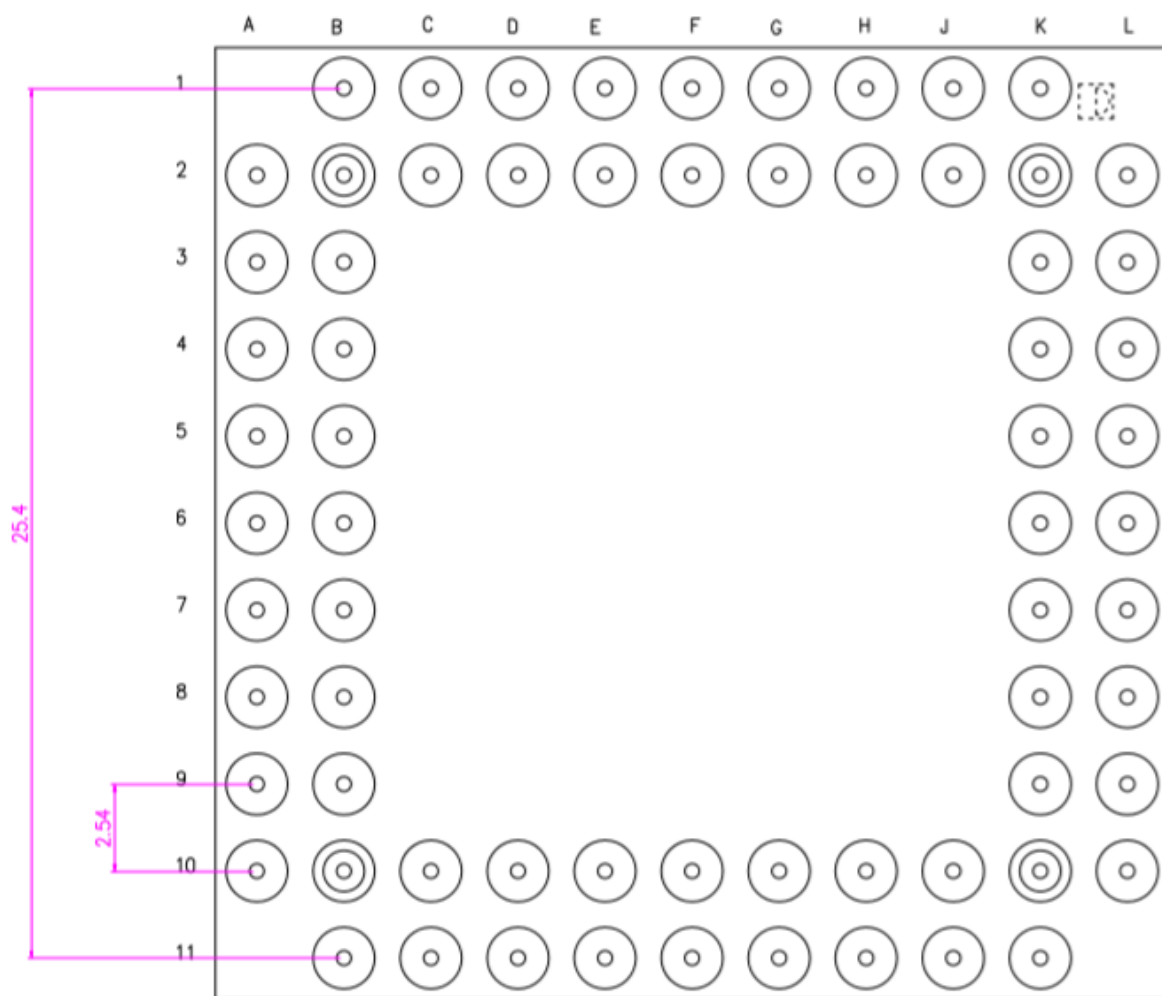
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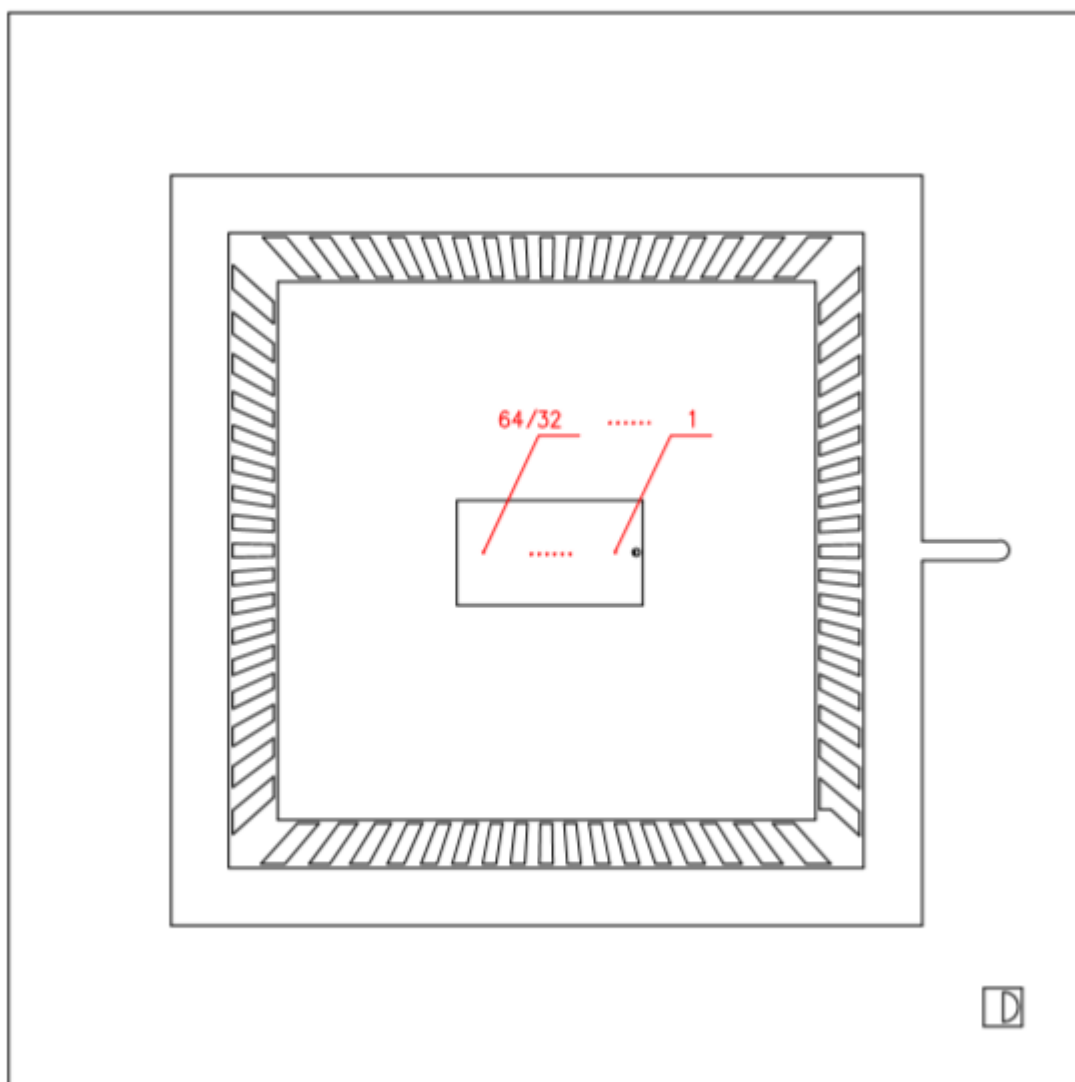
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Socket:

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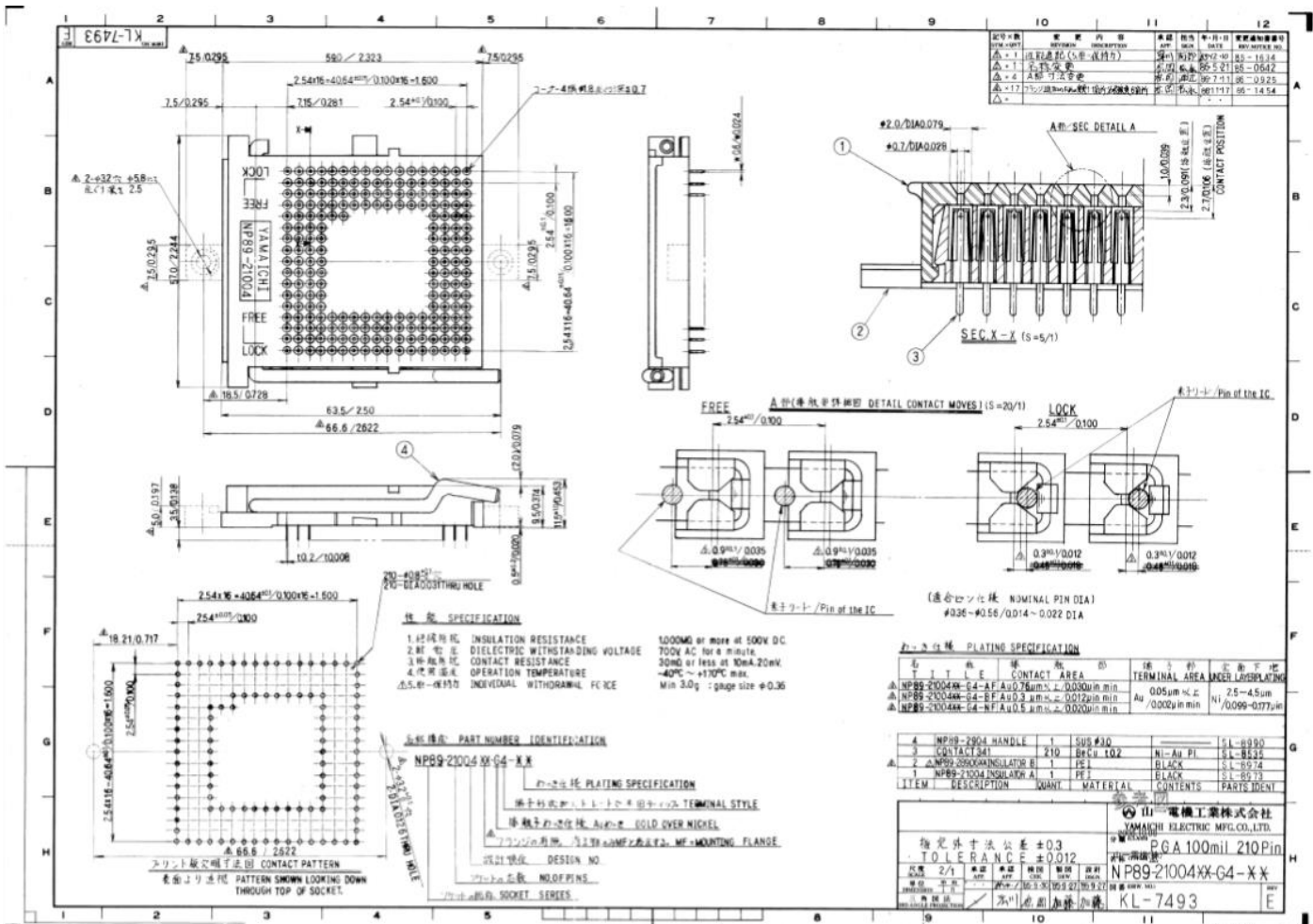
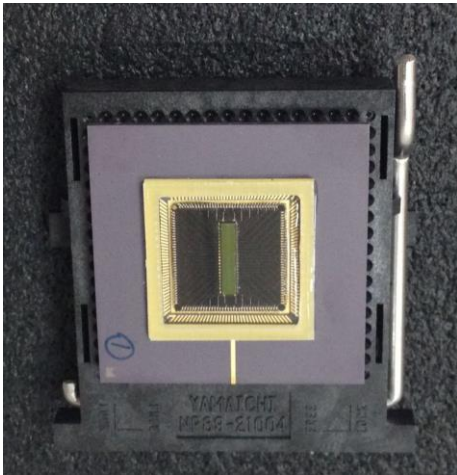
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