

PGA84M

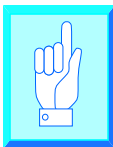
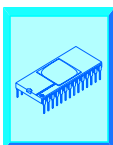
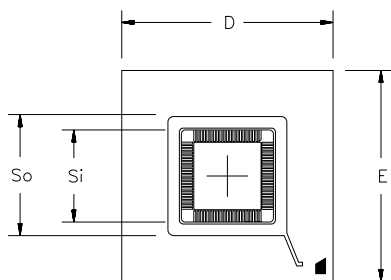


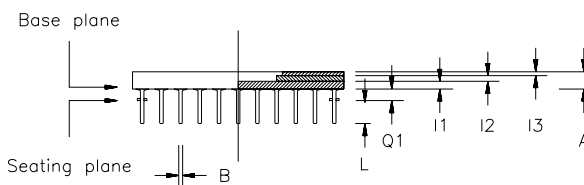
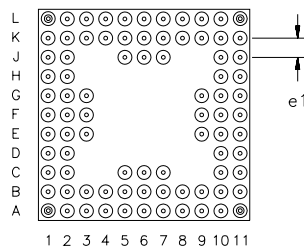
Table of Contents



Exit



A1



Dimension	Designation	Nominal	Units/Material
A	Base plane height	0.080	in
Q1	Seating-Base plane	0.050	in
D,E	Overall length	1.100	in (square)
e1	Lead pitch	0.100	in
L	Pin length	0.130	in
N	Pin count	84	
I1	Layer 1 thickness	0.040	in (ceramic)
I2	Layer 2 thickness	0.020	in (ceramic)
I3	Layer 3 thickness	0.020	in (ceramic)
Package	PGA84M	See appendix B	

Scale: 1X

Dimension	Designation	Nominal	Units/Material
Si	Seal ring ID	0.500	in
So	Seal ring OD	0.620	in
Lid	F0605M	See appendix A	

NOTE: ROTATE DIAGRAM 90 DEGREES COUNTERCLOCKWISE

PGA84M

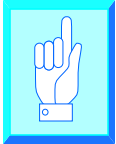
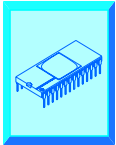
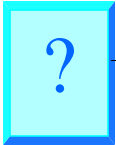
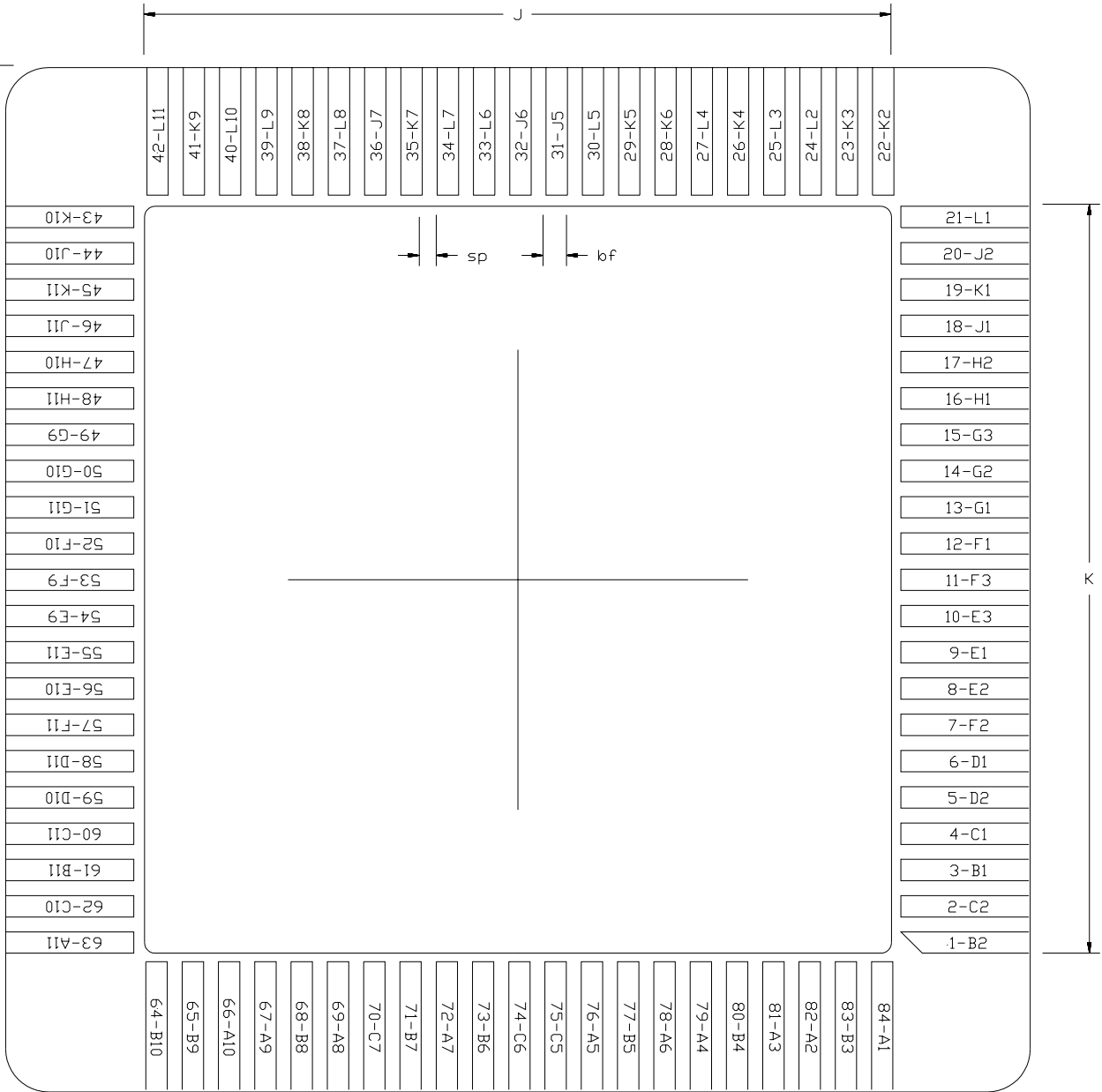


Table of Contents



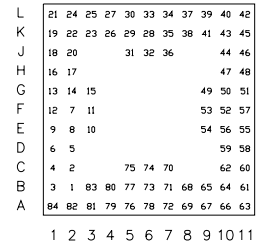
Exit



A1

Dimension	Designation	Nominal	Units/Material
J,K	Cavity length/width	0.350	in (square)
bs	Bond shelf width	0.065	in
sp	Bond finger spacing	0.007	in
bf	Bondfinger width	0.010	in

View of bottom of package



NOTE: ROTATE BOTTOM DIAGRAM 90 DEGREES CLOCKWISE

PGA84M

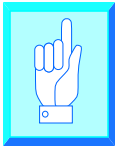
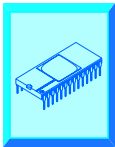


Table
of
Contents



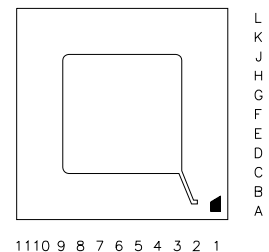
Exit



L	21	24	25	27	30	33	34	37	39	40	42
K	19	22	23	26	29	28	35	38	41	43	45
J	18	20			31	32	36			44	46
H	16	17								47	48
G	13	14	15						49	50	51
F	12	7	11						53	52	57
E	9	8	10						54	56	55
D	6	5								59	58
C	4	2			75	74	70			62	60
B	3	1	83	80	77	73	71	68	65	64	61
A	84	82	81	79	76	78	72	69	67	66	63

1 2 3 4 5 6 7 8 9 10 11

Pin Side view
of package



PGA84M

Bond Finger - Pin Interconnect Chart

Bond finger	Pin	Bond finger	Pin	Bond finger	Pin	Bond finger	Pin	Bond finger	Pin	Bond finger	Pin
1	B2	17	H2	33	L6	49	G9	65	B9	81	A3
2	C2	18	J1	34	L7	50	G10	66	A10	82	A2
3	B1	19	K1	35	K7	51	G11	67	A9	83	B3
4	C1	20	J2	36	J7	52	F10	68	B8	84	A1
5	D2	21	L1	37	L8	53	F9	69	A8		
6	D1	22	K2	38	K8	54	E9	70	C7		
7	F2	23	K3	39	L9	55	E11	71	B7		
8	E2	24	L2	40	L10	56	E10	72	A7		
9	E1	25	L3	41	K9	57	F11	73	B6		
10	E3	26	K4	42	L11	58	D11	74	C6		
11	F3	27	L4	43	K10	59	D10	75	C5		
12	F1	28	K6	44	J10	60	C11	76	A5		
13	G1	29	K5	45	K11	61	B11	77	B5		
14	G2	30	L5	46	J11	62	C10	78	A6		
15	G3	31	J5	47	H10	63	A11	79	A4		
16	H1	32	J6	48	H11	64	B10	80	B4		

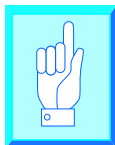
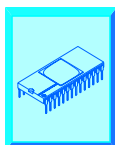
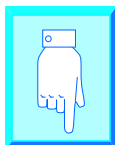


Table
of
Contents



Exit



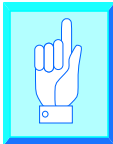
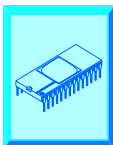


Table of Contents

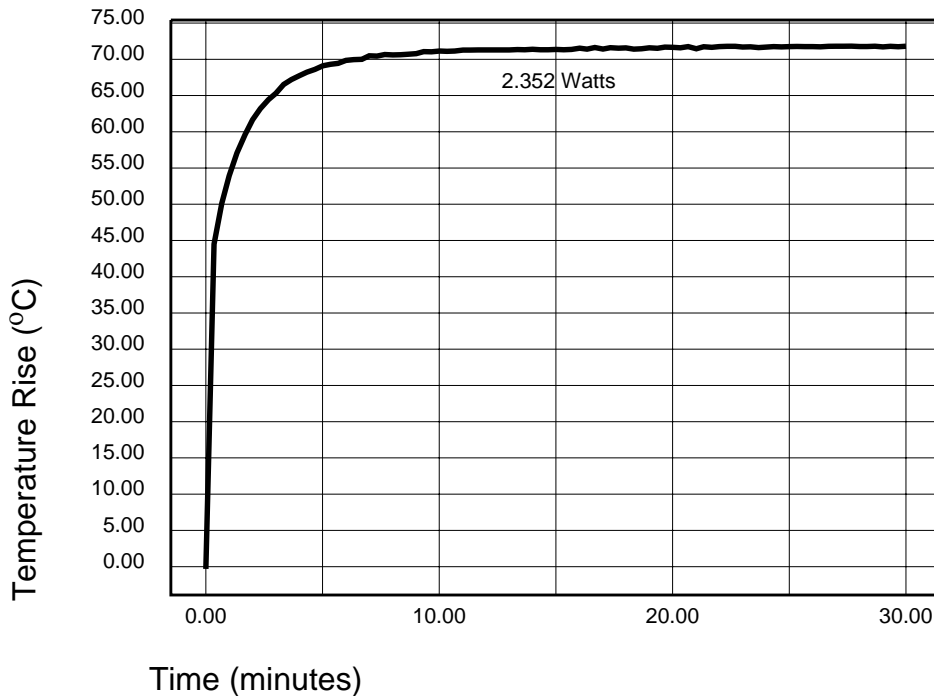


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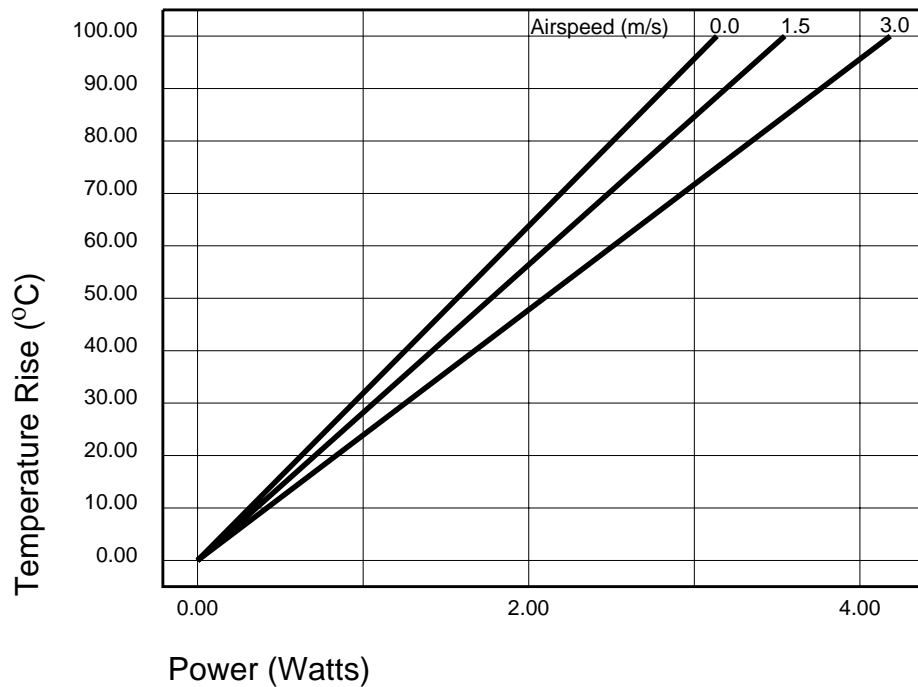


PGA84M

Transient Thermal Response



Temperature - Power Relationship



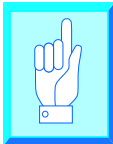
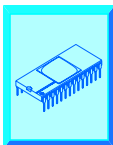


Table of Contents

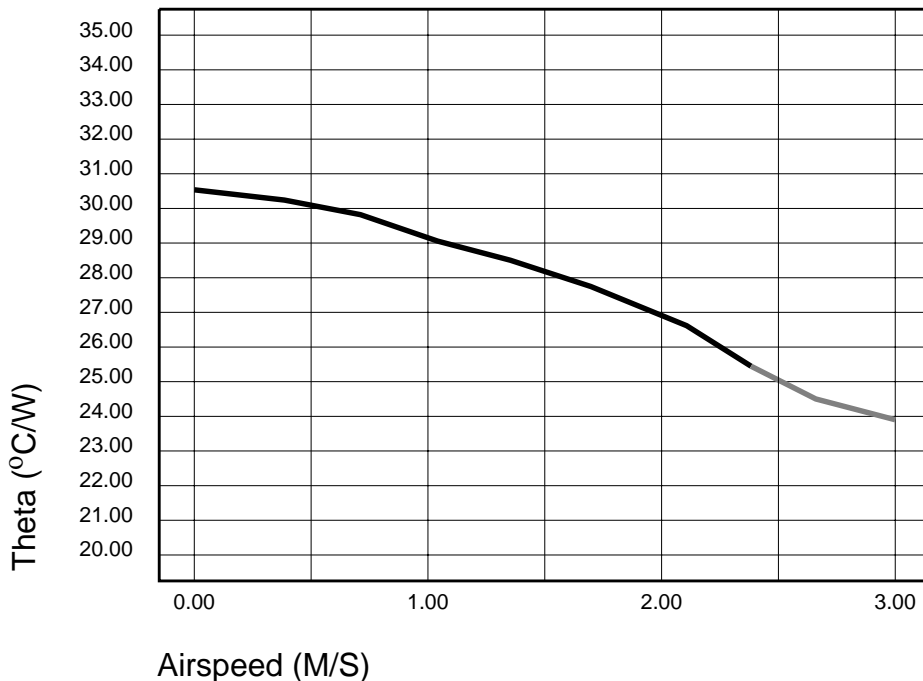


Exit



PGA84M

Thermal Resistance



Thermal test device: "TOAST"

Die size: 0.153" x 0.133"

Die Attach material: Abelstick 84LMI silver filled epoxy

Measured 

Predicted 

PGA84M

Electrical Characteristics

Bond Finger	$R_1 \Omega$	$L_1 \text{ nH}$	$C_1 \text{ pF}$	$R_2 \Omega$	$L_2 \text{ nH}$	$C_2 \text{ pF}$	$t_{of}(\text{ps})$
7,28,52,73	0.089	2.95	1.43	0.189	3.02	0.846	64
11,32,53,74	0.11	3.63	1.66	0.291	4.65	1.3	77
5,17,26,38,47,59,68,80	0.119	3.86	1.67	0.189	3.02	0.846	80
8,14,29,35,50,56,71,77	0.124	4.07	1.85	0.189	3.02	0.846	86
10,15,31,36,49,54,70,75	0.129	4.22	1.85	0.291	4.65	1.3	88
2,20,23,41,44,62,65,83	0.131	4.25	1.89	0.189	3.02	0.846	89
12,33,57,78	0.146	4.73	2.1	0.0433	0.693	0.194	99
9,13,30,34,51,55,72,76	0.121	4.49	2.25	0.0433	0.693	0.194	100
6,16,27,37,48,58,69,79	0.12	4.62	2.4	0.0433	0.693	0.194	105
4,18,25,39,46,60,67,81	0.143	5.24	2.54	0.0433	0.693	0.194	115
1,22,43,64	0.183	5.93	2.52	0.189	3.02	0.846	122
3,19,24,40,45,61,66,82	0.148	5.54	2.84	0.0433	0.693	0.194	125
21,42,63,84	0.191	6.23	2.8	0.0433	0.693	0.194	132

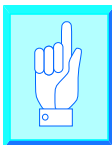
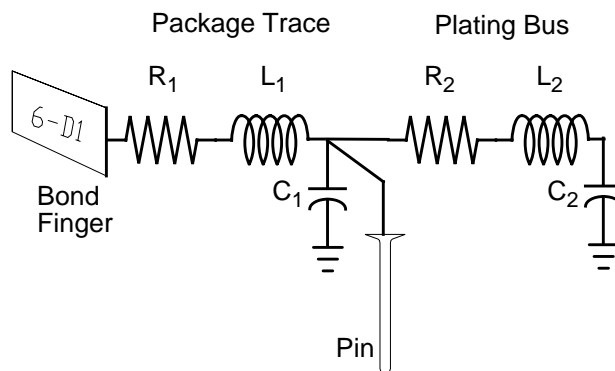
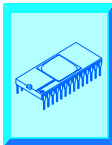
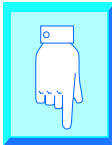


Table of Contents



Exit



PGA84M

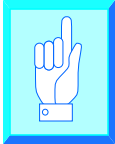
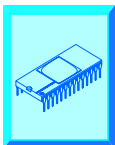


Table of Contents



Exit



Cross-Talk

Trace	Low Z	High Z
Short	Data In Progress	
Long		

% of adjacent signal coupled to nearest neighbor with 1ns rise time

Signal degradation

Trace	Input Risetime (ps)	Output Risetime (ps)
Short	Data In Progress	
Long		

output risetime for a specific input risetime