

Kokomo Semiconductor

A UNIT OF:



GM Components Holdings, LLC

PST2-03 Thermal Test Die

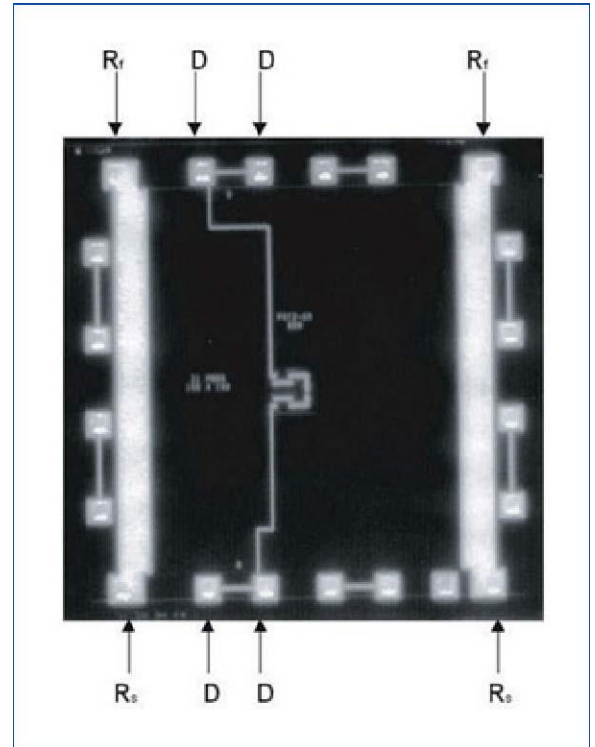
The Kokomo Semiconductor PST series of Thermal Test Die is used to determine thermal characteristics of a package, such as thermal resistance Junction to Case (Θ_{jc}) or Junction to Ambient (Θ_{ja}). These Thermal Test Die incorporate a heating element and typically, two independent methods for on-die temperature monitoring.

Resistive heating in the PST2 is accomplished by driving a current through a doped silicon well between a pair of bus bars, labeled R_s and R_f . The 4 R labeled pads accommodate Kelvin connections, if desired.

At the top and bottom of the die are a pair of pads, labeled D in the diagram, which connect a serial five-diode temperature sense network. Again, a four-pad layout allows Kelvin connections, if desired.

➤ Options Available

- Five-inch wafer, no bumps, nitride passivation, 152-micron square passivation openings for wire bonding
- Five-inch wafer, FOC bump, 63Sn/37Pb solder, UBM diameter – 152 microns, bump height – 140 microns
- Five-inch wafer, FOC bump, lead free solder (Sn/Ag/Cu), UBM diameter – 152 microns, bump height – 140 microns.



➤ IC Fab Information

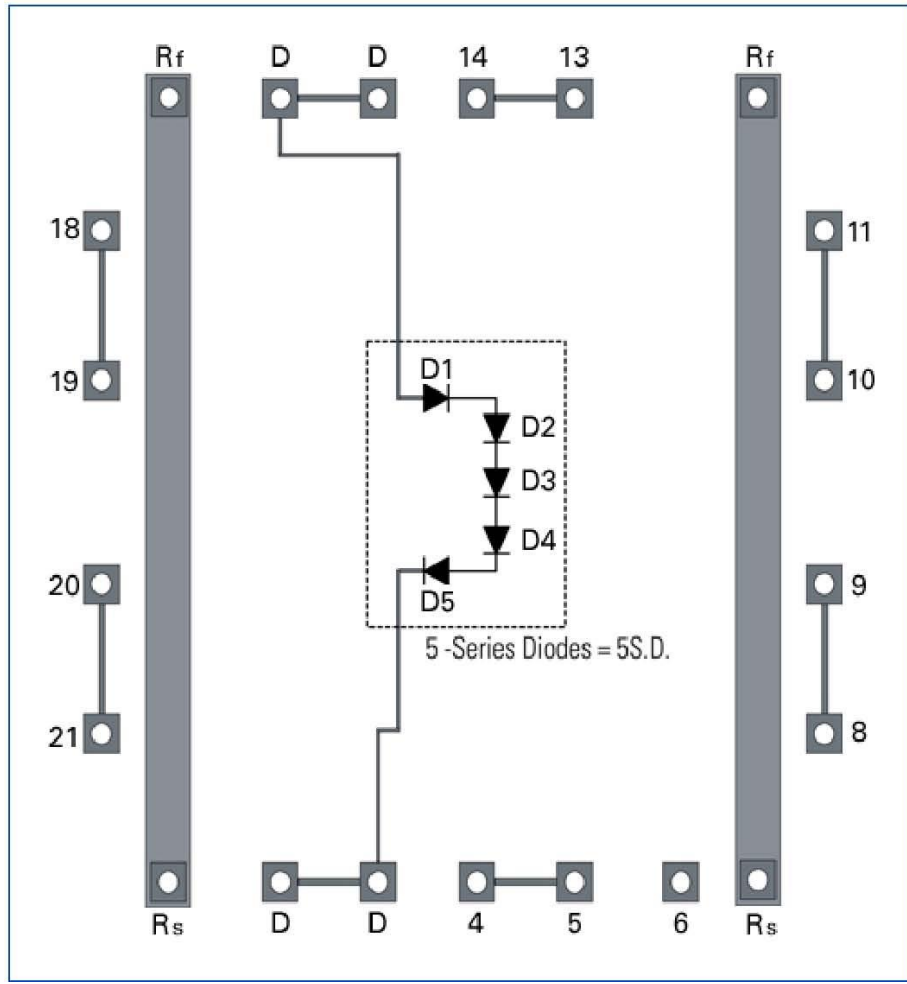
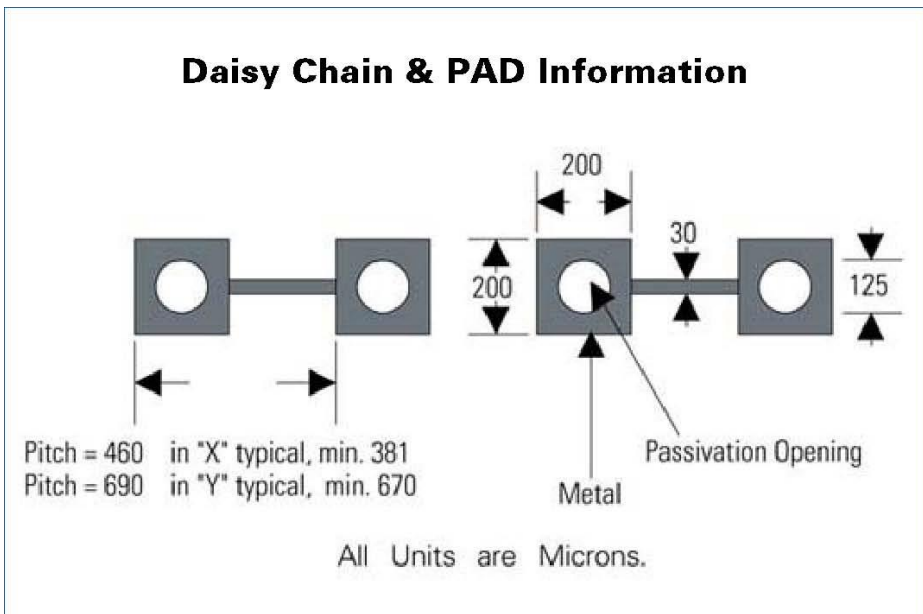
- Wafer size 5-inch (125 mm)
- Die thickness 610-660 microns
- Metal thickness 24k angstroms
- Metal composition Al/Cu/Si (98/1/1)
- Passivation thickness 10k angstroms
- Passivation type Nitride
- Silicon orientation 1-1-1
- Silicon type P

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PST2-03/8DX / X,Y Coordinates .150-Inch X .150-Inch Die Sizes (0,0) is located at the center of the die.			
Microns			
PIN#	NAME	X	Y
1	Rs(1)	-1484.5	-1651.5
2	D(1)	-794.5	-1651.5
3	D(2)	-334.5	-1651.5
4	Pin4	184.5	-1651.5
5	Pin5	644.5	-1651.5
6	Pin6	1104.5	-1651.5
7	Rs(2)	1484.5	-1651.5
8	Pin8	1651.5	-1024.5
9	Pin9	1651.5	-334.5
10	Pin10	1651.5	334.5
11	Pin11	1651.5	1024.5
12	Rf(1)	1484.5	1651.5
13	Pin13	644.5	1651.5
14	Pin14	184.5	1651.5
15	D(3)	-334.5	1651.5
16	D(4)	-794.5	1651.5
17	Rf(2)	-1484.5	1651.5
18	Pin18	-1651.5	1024.5
19	Pin19	-1651.5	334.5
20	Pin20	-1651.5	-334.5
21	Pin21	-1651.5	-1024.5

The test die offered on this web site is to be used to characterize assembly processes and materials. Applying the data from the test die to a functional system is the responsibility of the user. Kokomo Semiconductor makes no warranty, express or implied including the implied warranties of merchantability and fitness for a particular purpose, that the user's system designed using