

# Single-In-Line Series 750



## Solid Ceramic Machine Insertable SIP Products

CTS' solid ceramic construction withstands thermal shock during soldering and extended thermal cycling. This is possible because CTS' products are constructed of a solid piece of ceramic, with a single thermal coefficient of expansion.

- Compact edge mount modules
- Ultra high stability and reliability
- .100" lead spacing
- Alumina substrate
- Application specific circuits are available

### Resistance Range:

Standard: 22Ω to 1 MegΩ  
Special: below 22Ω and above 1 MegΩ

### Resistance Tolerance:

Standard: ±2% or 0.5Ω  
Special: ±0.25%, or 0.25Ω (whichever is greater)

### Maximum Operating Voltage:

100V not to exceed rated power

### Temperature Coefficient:

Standard: 100Ω to 1 MegΩ  
±100PPM/°C typical  
10Ω to 99Ω  
±200PPM/°C typical  
Tracking: Available to 50PPM/°C with same formulation and on same side of substrate.

### Operating Temperature Range:

-55°C to +125°C

### Dielectric Strength:

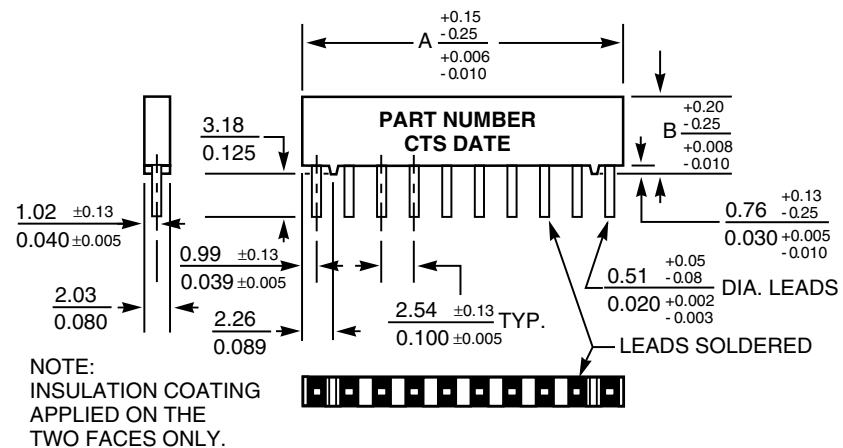
200 VAC

### Resistance Matching (2 like resistors)

Standard: 50Ω to 100KΩ: 0.5% or 0.5Ω (whichever is greater)  
100KΩ to 1 MegΩ: ±2%

### Ratio Matching

Special: 50Ω to 100Ω: ±1%  
100Ω to 100KΩ: ±0.5%  
100KΩ to 1 MegΩ: ±2%



NOTE:  
INSULATION COATING  
APPLIED ON THE  
TWO FACES ONLY.

"B" Dim—Standard .250 High		Package Power	
#Pins	"A" Dim	@25°C	@70°C
4	9.60/0.378	1.0	0.7
6	14.68/0.578	1.5	1.0
8	19.76/0.778	2.1	1.4
9	22.30/0.878	2.3	1.5
10	24.84/0.978	2.5	1.7
Schematic			
Res. Power	1, 5, 7	0.38	0.25
Res. Power	3	0.6	0.4

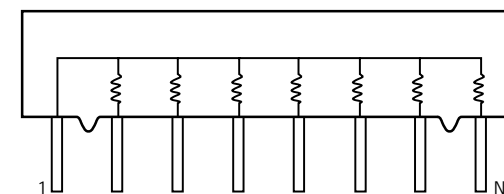
"B" Dim— .350 High		Package Power	
#Pins	"A" Dim	@25°C	@70°C
4	9.60/0.378	1.3	0.9
6	14.68/0.578	2.1	1.4
8	19.76/0.778	2.7	1.8
10	24.84/0.978	3.3	2.2
11	27.38/1.078	3.5	2.3
12	29.45/1.178	3.7	2.5
Schematic			
Res. Power	2, 6, 8	0.45	0.3
Res. Power	4	0.8	0.5

### NOTES:

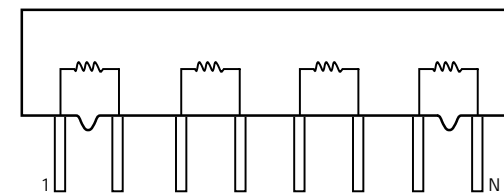
- General Tolerances mm ±0.25  
inch ±0.010
- Dimensions are mm/in.

Application Notes	pages 32-33
Power Derating	page 45
Land Patterns	pages 46-47
Packaging	pages 48-49
Environmental Performance Specifications	pages 50-51

### Bussed CTS Schematic #1 – 0.250 High Schematic #2 – 0.350 High

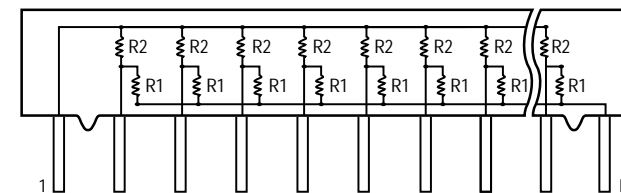


### Isolated CTS Schematic #3 – 0.250 High Schematic #4 – 0.350 High

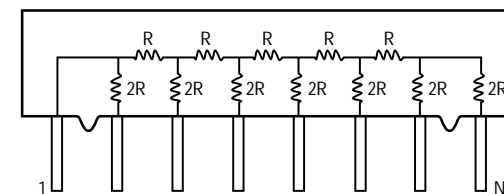


Not Available  
in 7, 9, 11 Pins

### Dual Terminator CTS Schematic #5 – 0.250 High Schematic #6 – 0.350 High



### R/2R Ladder CTS Schematic #7 – 0.250 High Schematic #8 – 0.350 High



(Ohms)	(Ohms)
10	2700
12	3300
15	3900
18	4700
22	5100
27	5600
33	6800
39	8200
47	10000
51	11000
56	12000
68	15000
82	18000
100	22000
110	27000
120	33000
150	39000
180	47000
200	56000
220	68000
270	82000
330	100000
390	110000
470	120000
510	150000
560	180000
680	220000
820	270000
1000	330000
1100	390000
1200	470000
1500	560000
1800	680000
2000	820000
2200	1000000

## How to Order Series 750 Products

Custom products are marked with either a customer part number or a non-descriptive CTS part number. Send documentation to CTS Sales Office giving schematic, resistor values and tolerance, and other non-standard information. See pages 32-33 for custom network information.

**750**      **10**      **3**      **R**      **4.7K**  
Series 750      Number of Pins      Prefix

Resistor Value Schematics 1, 2, 3, 4, 7, 8  
Resistor Value Schematics 5, 6  
Example 220/330 = 220Ω/330Ω  
All standard part numbers are ±2%

Schematic	1 Bussed (0.250 High)	2 Bussed (0.350 High)
	3 Isolated (0.250 High)	4 Isolated (0.350 High)
	5 Dual Terminator (0.250 High)	6 Dual Terminator (0.350 High)
	7 Ladder (0.250 High)	8 Ladder (0.350 High)

NOTE: No dashes or spaces to appear in part number.

Example: 750103R4.7K

See page 45 for part marking information.