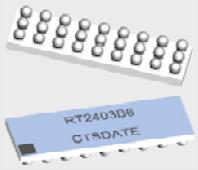


DDR SDRAM Terminator
Technical Data Sheet
RoHS Compliant Parts Available

Description

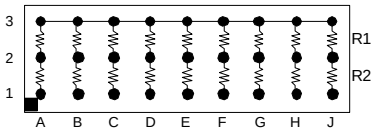
This SSTL_2 terminator network provides high performance resistor termination for SSTL_2 Class I or Class II systems.

Designed with a ceramic substrate, this device minimizes channel capacitance, a primary cause of reduced system performance. In addition, the BGA package eases routing design, saving the designer many hours of printed circuit layout.

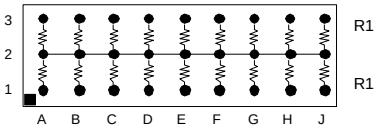
The BGA packaging has been proven to reduce rework and improve reliability.

Features

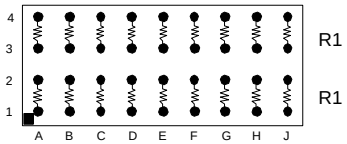
- 18 Bit SSTL_2 Termination Sets
- Compliant to JEDEC Std. 8-9A
- Excellent high frequency performance
- Slim BGA Package
- 1% Resistor Tolerance
- Low Channel Capacitance
- RoHS Compliant Designs Available
  - Compatible with both lead and lead-free manufacturing processes



Style H



Style F

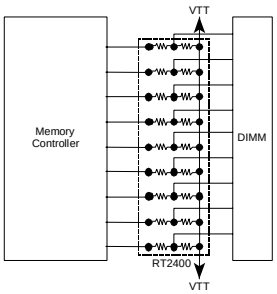


Style C

Electrical Specifications

Resistor Tolerance:	± 1.0%
TCR	±200ppm/°C
Operating Temperature Range	-55°C to +125°C
Maximum Resistor Power:	0.05 Watts at 70°C
Maximum Package Power:	1.0 Watts at 70°C
Process Requirements:	
Maximum Re-flow Temperature	Per IPC/JEDEC J-STD-020C

Typical Application



Ordering Information

1.27mm Pitch Standard Part No.	1.00mm Pitch Standard Part No.	Style	R1 Ω	R2 Ω	Array Size	1.27mm Pitch RoHS Part No.	1.00mm Pitch RoHS Part No.
RT1400B6*	RT1400B7*	H	50	25	3 x 9	RT2400B6*	RT2400B7*
RT1401B6	RT1401B7	H	25	22	3 x 9	RT2401B6	RT2401B7
RT1402B6*	RT1402B7*	F	50	-	3 x 9	RT2402B6*	RT2402B7*
RT1403B6*	RT1403B7*	F	25	-	3 x 9	RT2403B6*	RT2403B7*
RT1404B6*	RT1404B7*	C	25	-	4 x 9	RT2404B6*	RT2404B7*
RT1405B6*	RT1405B7*	C	22	-	4 x 9	RT2405B6*	RT2405B7*
RT1407B6*	RT1407B7*	F	35	-	3 x 9	RT2407B6*	RT2407B7*
RT1408B6*	RT1408B7*	H	60	25	3 x 9	RT2408B6*	RT2408B7*
RT1430B6	RT1430B7	F	60	-	3 x 9	RT2430B6	RT2430B7
RT1432B6	RT1432B7	F	120	-	3 x 9	RT2432B6	RT2432B7
RT1460B6	RT1460B7	C	50	-	4 x 9	RT2460B6	RT2460B7
RT1463B6*	RT1463B7	C	33	-	4 x 9	RT2463B6*	RT2463B7
RT1465B6	RT1465B7	C	47	-	4 x 9	RT2465B6	RT2465B7

*Indicates available Top Probe-able part numbers.
Refer to the following link for detailed Top Side Probe-able information:
www.ctscorp.com/components/clearone/TopProveClearOne.pdf

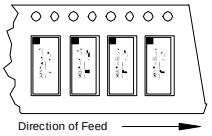
Packaging Information

Suffix	TR7	TR13
Tape Width	24 mm	24mm
Carrier Pitch	8 mm	8 mm
Reel Diameter	7 inch	13 inch
Parts/Reel	1,000	4,000

Part Number Coding
7 inch reel, Add TR7 to part number, example RT2400B6TR7

13 inch reel, Add TR13 to part number, example RT2400B6TR13

(Bulk packaging is not available)



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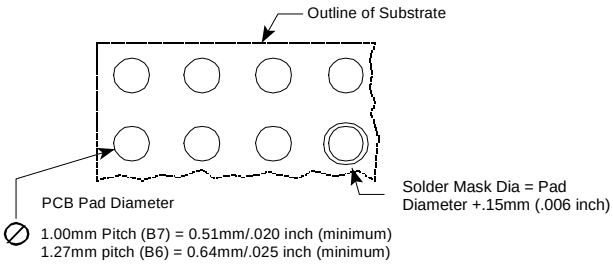
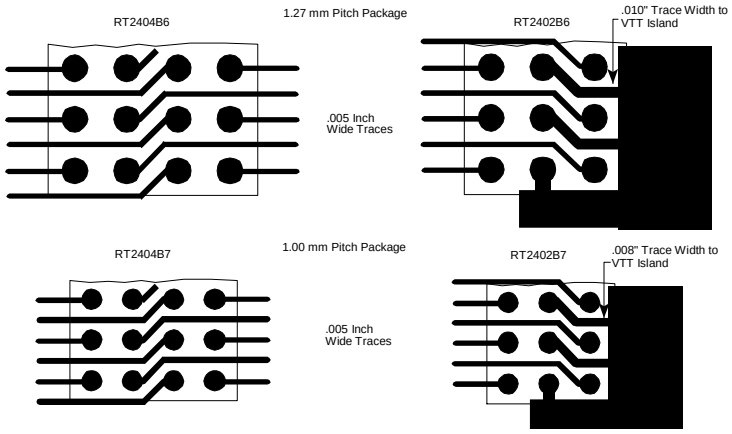
Recommended Land Pattern



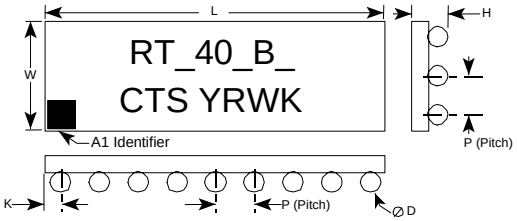
For .006" Thick Solder Paste Stencil, Aperture Opening Should be Equal to the PCB Pad Diameter.

Refer to www.ctscorp.com/components/clearone.asp for additional PCB design information

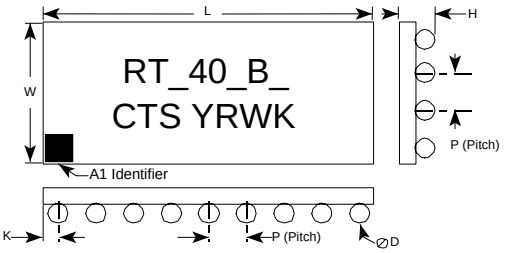
BGA Routing Scheme



Mechanical Diagrams



1.27mm Pitch		L	W	H	P	D	K
Styles H & F	mm	11.43±0.15	3.81±0.15	1.32±0.15	1.27±0.25	0.76±0.05	0.64±0.25
	inch	.450±.006	.150±.006	.052±.006	.050±.010	.030±.002	.025±.010
1.0mm Pitch		L	W	H	P	D	K
Styles H & F	mm	9.00±0.15	3.00±0.15	1.19±0.15	1.00±0.25	0.64±0.05	0.50±0.25
	inch	.354±.006	.118±.006	.047±.006	.039±.010	.025±.002	.020±.010



1.27mm Pitch		L	W	H	P	D	K
Style C	mm	11.43±0.15	5.08±0.15	1.32±0.15	1.27±0.25	0.76±0.05	0.64±0.25
	inch	.450±.006	.200±.006	.052±.006	.050±.010	.030±.002	.025±.010
1.0mm Pitch		L	W	H	P	D	K
Style C	mm	9.00±0.15	4.00±0.15	1.19±0.15	1.00±0.25	0.64±0.05	0.50±0.25
	inch	.354±.006	.157±.006	.047±.006	.039±.010	.025±.002	.020±.010

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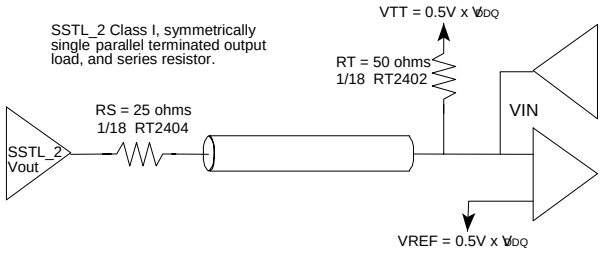
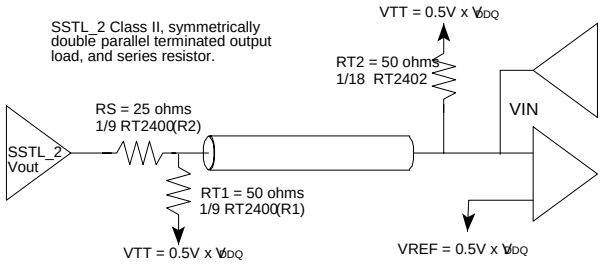
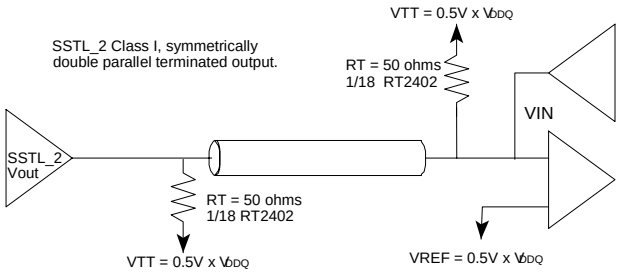
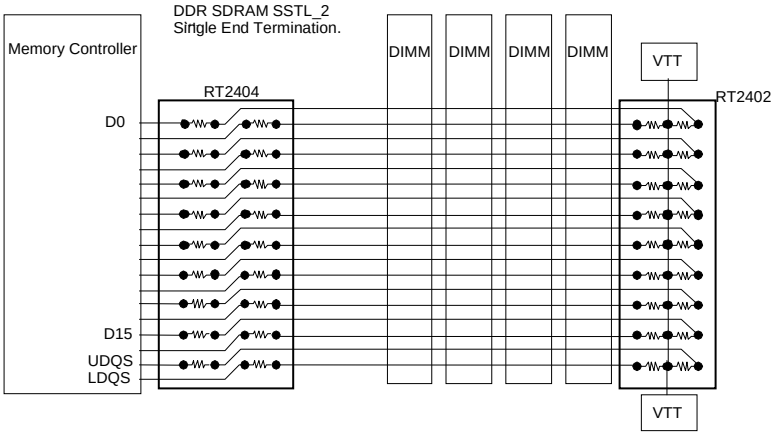
Applications









Complete ClearONE Product, Processing, and Application Information can be found at the following link:
http://www.ctscorp.com/components/clearone.asp

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