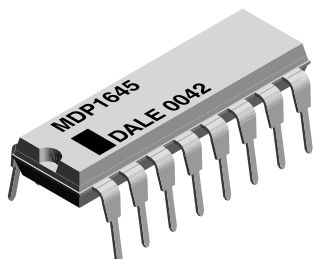


## Thick Film Resistor Networks, Dual-In-Line, Molded DIP



### FEATURES

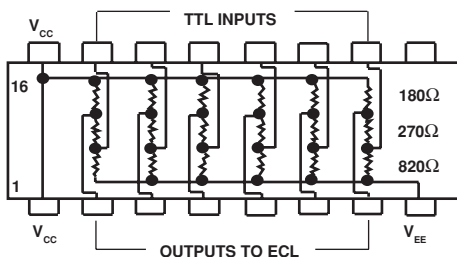
- 0.190" [4.83mm] maximum seated height
- Rugged, molded case construction
- Low temperature coefficient (- 55°C to + 125°C),  
MDP 1645:  $\pm 100\text{ppm}/^\circ\text{C}$ , MDP 1646:  $\pm 250\text{ppm}/^\circ\text{C}$
- Compatible with automatic insertion equipment
- Highly stable thick film
- Reduces PC board space and reduces total assembly costs
- Available in tube pack

### STANDARD ELECTRICAL SPECIFICATIONS

MODEL/ PIN NO.	RESISTOR POWER RATING Max. @ 70°C W	PACKAGE POWER RATING Max. @ 70°C W	STANDARD TOLERANCE  $\pm\%$	TEMPERATURE COEFFICIENT (- 55°C to + 125°C) ppm/°C	TEMPERATURE COEFFICIENT TRACKING ppm/°C	WEIGHT  g
MDP 1645	0.125	2.0	2	$\pm 100$ Typical	$\pm 150$	1.5
MDP 1646	0.125	2.0	5	$\pm 250$ Typical	$\pm 150$	1.5

### CIRCUIT APPLICATIONS

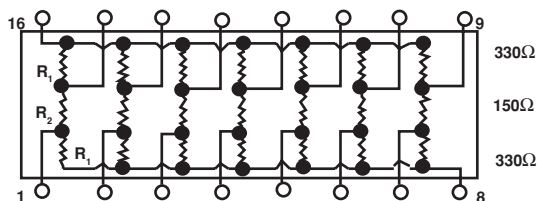
#### MDP1645 Schematic



#### TTL to ECL translator

The MDP 1645 network consists of 18 resistors of 3 different values, internally divided into six (6) identical three (3) resistor sections for TTL to ECL translation.

#### MDP1646 Schematic



#### SCSI-BUS signal terminator

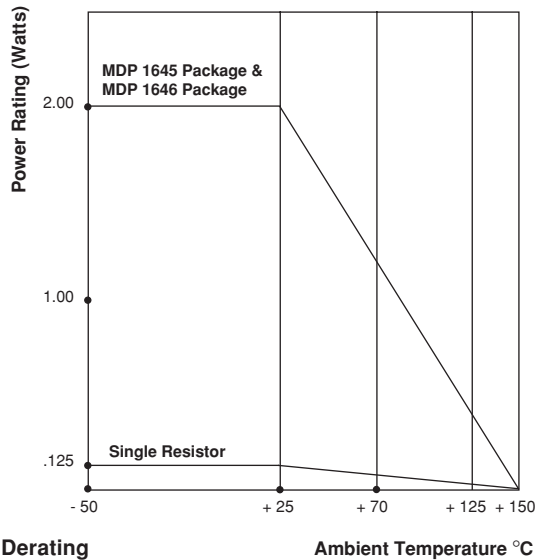
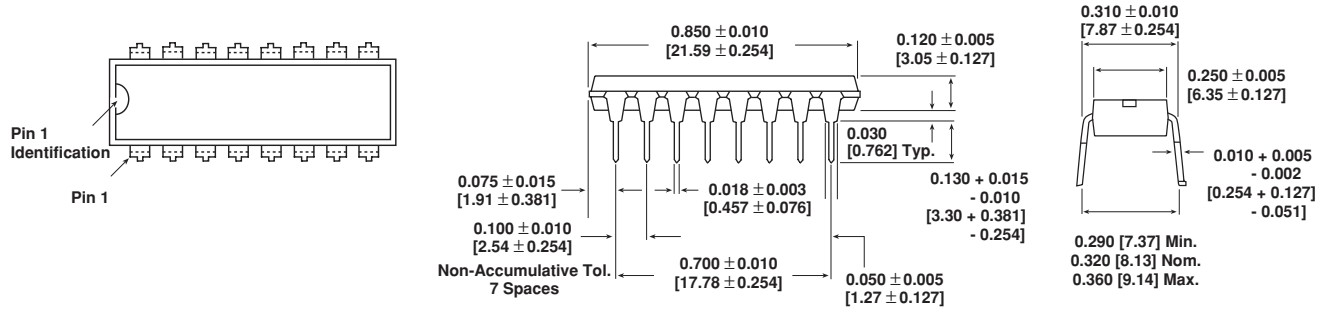
The MDP 1646 network consists of 21 resistors of 2 different values, internally divided into seven (7) identical three (3) resistor sections for SCSI-BUS terminator applications.

### ORDERING INFORMATION

MDP  
MODEL

16  
NUMBER OF PINS

45  
46  
SCHEMATIC

**DIMENSIONS** in inches [millimeters]

**TECHNICAL SPECIFICATIONS**

PARAMETER	UNIT	MDP Series
Maximum Operating Voltage	VDC	100
Voltage Coefficient of Resistance (Typical)	$V_{eff}$	< 50 ppm/°C
Operating Temperature Range	°C	- 55 to + 125
Storage Temperature Range	°C	- 55 to + 150

**MECHANICAL SPECIFICATIONS**

Marking Resistance to Solvents:	Permanency testing per MIL-STD-202, Method 215.
Solderability:	Per MIL-STD-202, Method 208E.
Terminals:	Copper alloy, tin-lead plated.
Body:	Molded epoxy.
Weight:	1.5 grams.

**PERFORMANCE**

TEST	CONDITIONS	MAX. $\Delta R$ (Typical Test Lots)
Thermal Shock	5 cycles between - 65°C and + 125°C	$\pm 0.50\% \Delta R$
Short Time Overload	2.5 x rated working voltage 5 seconds	$\pm 0.25\% \Delta R$
Low Temperature Operation	45 minutes at full rated working voltage at - 65°C	$\pm 0.25\% \Delta R$
Moisture Resistance	240 hours with humidity ranging from 80% RH to 98% RH	$\pm 0.50\% \Delta R$
Resistance to Soldering Heat	Leads immersed in + 260°C solder to within 1/16" of body for 10 seconds	$\pm 0.25\% \Delta R$
Shock	Total of 18 shocks at 100 g's	$\pm 0.25\% \Delta R$
Vibration	12 hours at maximum of 20 g's between 10 and 2,000 Hz	$\pm 0.25\% \Delta R$
Load Life	1,000 hours at + 70°C, rated power applied 1.5 hours "ON", 0.5 hour "OFF" for full 1000 hour period. Derated according to the curve.	$\pm 0.50\% \Delta R$
Terminal Strength	4 1/2 pound pull for 30 seconds	$\pm 0.25\% \Delta R$
Insulation Resistance	10,000 Megohm (minimum)	—
Dielectric Withstanding Voltage	No evidence of arcing or damage (200 V RMS for 1 minute)	—