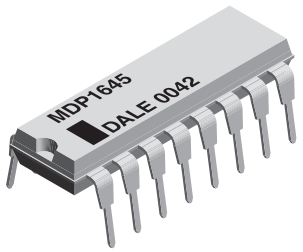
MDP 45, 46

Vishay Dale

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



FEATURES

- 0.190" [4.83 mm] maximum seated height
- Rugged, molded case construction
- Low temperature coefficient (- 55 °C to + 125 °C), MDP 1645: ± 100 ppm/°C, MDP 1646: ± 250 ppm/°C
- Compatible with automatic insertion equipment
- Thick film resistive elements
- Reduces PC board space and reduces total assembly costs
- Available in tube pack
- Lead (Pb)-free version is RoHS compliant

Pb Available

e1

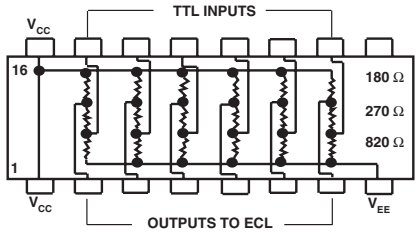
RoHS* COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL/ PIN NO.	RESISTOR POWER RATING Max. AT 70 °C W	PACKAGE POWER RATING Max. AT 70 °C W	STANDARD TOLERANCE ± %	TEMPERATURE COEFFICIENT (- 55 °C to + 125 °C) ppm/°C	TEMPERATURE COEFFICIENT TRACKING ppm/°C	WEIGHT g
MDP1645	0.125	2.0	2	± 100 Typical	± 150	1.5
MDP1646	0.125	2.0	5	± 250 Typical	± 150	1.5

STANDARD ELECTRICAL SPECIFICATIONS

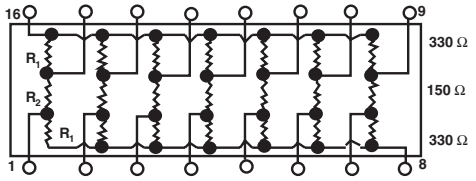
MDP1645 Schematic



TTL to ECL translator

The MDP1645 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 MDP1646 network consists of 21 resistors of 2 different values, internally divided into seven (7) identical three (3) resistor sections for SCSI-BUS terminator applications.

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: MDP1646D04 (preferred part numbering format)

M	D	P	1	6	4	6	D	0	4			

GLOBAL MODEL	PIN COUNT	SCHEMATIC	PACKAGING	SPECIAL
MDP	**16**	**45** = TTL/ECL Translator **46** = Signal Terminator	**E04** = Lead Free, Tube **D04** = Tin/Lead, Tube	Blank = Standard (Dash Number) (up to 3 digits) From **1-999** as applicable

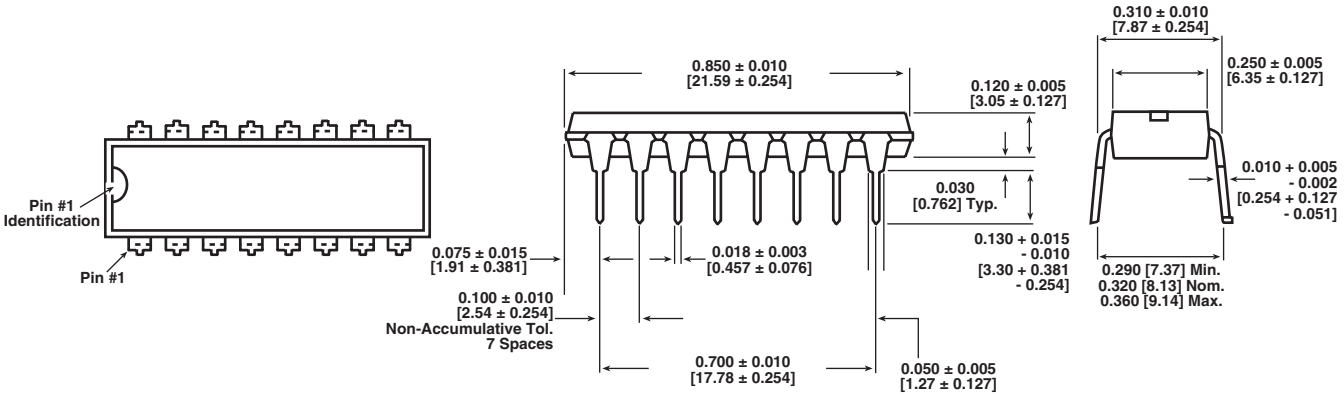
Historical Part Number: MDP1646 (will continue to be accepted)

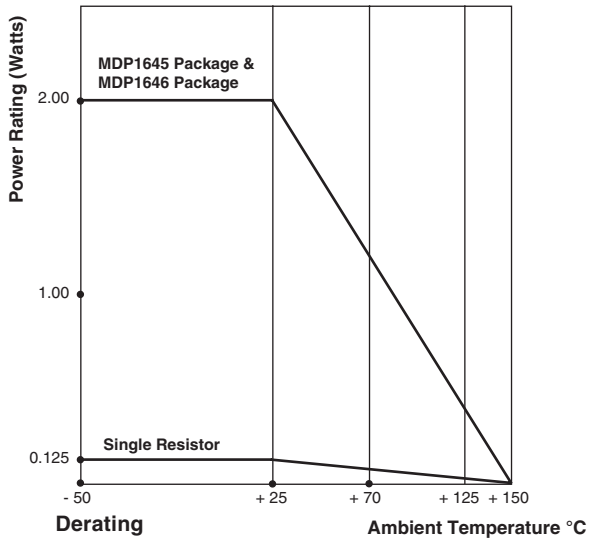
MDP	16	46	D04
HISTORICAL MODEL	PIN COUNT	SCHEMATIC	PACKAGING

* Pb containing terminations are not RoHS compliant, exemptions may apply

For technical questions contact: ff2aresistors@vishay.com

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, solder plated
Body:	Molded epoxy
Weight:	1.5 grams

PERFORMANCE		
TEST	**CONDITIONS**	**MAX. ΔR (Typical Test Lots)**
Thermal Shock	5 cycles between - 65 °C and + 125 °C	± 0.50 % ΔR
Short Time Overload	2.5 x rated working voltage 5 seconds	± 0.25 % ΔR
Low Temperature Operation	45 minutes at full rated working voltage at - 65 °C	± 0.25 % ΔR
Moisture Resistance	240 hours with humidity ranging from 80 % RH to 98 % RH	± 0.50 % ΔR
Resistance to Soldering Heat	Leads immersed in + 260 °C solder to within 1/16" of body for 10 seconds	± 0.25 % ΔR
Shock	Total of 18 shocks at 100 g's	± 0.25 % ΔR
Vibration	12 hours at maximum of 20 g's between 10 and 2000 Hz	± 0.2 5% ΔR
Load Life	1000 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.	± 0.50 % ΔR
Terminal Strength	4 1/2 pound pull for 30 seconds	± 0.25 % ΔR
Insulation Resistance	10 000 Megohm (minimum)	-
Dielectric Withstanding Voltage	No evidence of arcing or damage (200 V RMS for 1 minute)	-

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