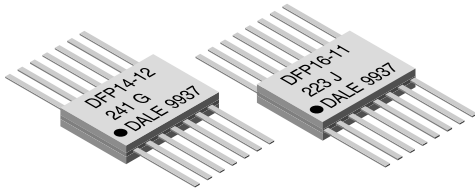


Thick Film Resistor Networks Flat Pack, 11, 12 Schematics



FEATURES

- 11 and 12 Schematics
- 0.065" [1.65mm] height for high density packaging
- Low temperature coefficient (- 55°C to + 125°C) ± 100ppm/°C
- Hot solder dipped leads
- Highly stable thick film
- Wide resistance range
- All devices are capable of passing the MIL-STD-202, Method 210, Condition C "Resistance to Soldering Heat" test

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING		CIRCUIT SCHEMATIC	LIMITING ELEMENT VOLTAGE MAX. V \cong	TEMPERATURE ¹⁾ COEFFICIENT ppm/°C	STANDARD ²⁾ TOLERANCE %	RESISTANCE RANGE Ω	TEMPERATURE COEFFICIENT TRACKING ppm/°C
	P _{25°C} ELEMENT W	P _{25°C} PACKAGE W						
DFP	0.25	0.65	11	75	± 100	2	10 - 1M	50
	0.15	0.65	12	75	± 100	2	10 - 1M	50

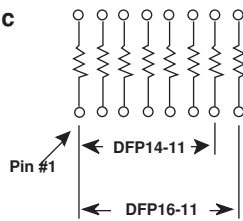
¹⁾Temperature Range: - 55°C to + 125°C

²⁾± 1% and ± 5% tolerance available

• Consult factory for stocked values

CIRCUIT APPLICATIONS

11 Schematic

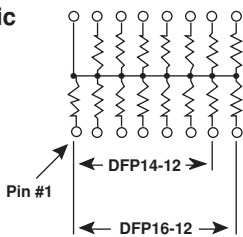


7 or 8 isolated resistors

The DFPxx-11 provide the user with 7 or 8 nominally equal resistors with each resistor isolated from all others. Commonly used in the following applications:

- "Wired OR" Pull-up
- Power Driven Pull-up
- Power Gate Pull-up
- Line Termination
- Long-line Impedance Balancing
- LED Current Limiting
- ECL Output Pull-down
- TTL Input Pull-down

12 Schematic



13 or 15 resistors with one pin common

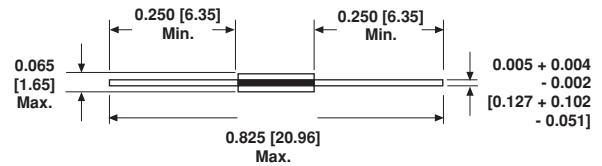
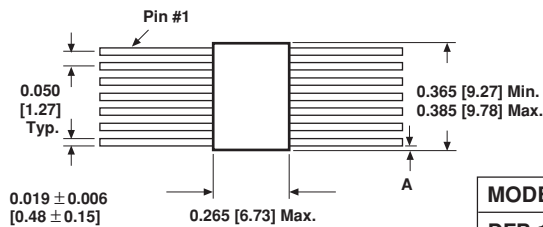
The DFPxx-12 provide the user with a choice of 13 or 15 nominally equal resistors, each connected to a common pin (14 or 16). Commonly used in the following applications:

- MOS/ROM Pull-up/Pull-down
- Open Collector Pull-up
- "Wired OR" Pull-up
- Power Driven Pull-up
- TTL Input Pull-down
- Digital Pulse Squaring
- TTL Unused Gate Pull-up
- High Speed Parallel Pull-up

ORDERING INFORMATION

DFP MODEL	14 NUMBER OF PINS	11 12 SCHEMATIC	102 RESISTANCE VALUE The first 2 digits (3 for "F" tolerance) are significant figures. The last digit specifies the number of zeros to follow.	G TOLERANCE F = ± 1% G = ± 2% J = ± 5%
<p>EXAMPLE: DFP14-11-102G = A flat pack thick film network with 14 pins on 0.050" [1.27mm] centers, 11 Schematic, resistance of 1000 ohms and tolerance of ± 2%, with Type G hot solder dipped terminals.</p> <p>EXAMPLE: DFP14-12-102G = A flat pack thick film network with 14 pins on 0.050" [1.27mm] centers, 12 Schematic, resistance of 1000 ohms and tolerance of ± 2%, with Type G hot solder dipped terminals.</p>				

DIMENSIONS in inches [millimeters]

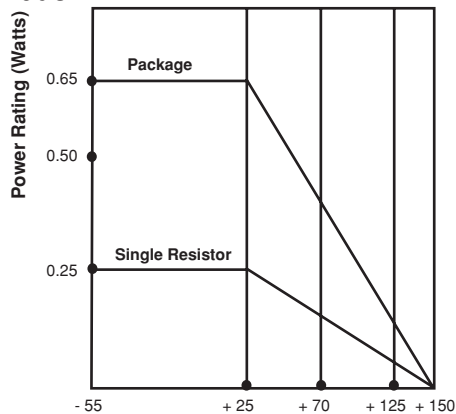


MODEL	DIMENSION A
DFP-14	0.037 [0.940] ± 0.010 [0.254]
DFP-16	0.012 [0.305] ± 0.010 [0.254]

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	DFP14 / 16
Isolation Resistance 11 Schematic	MΩ	> 100
Voltage Coefficient of Resistance:	ppm/V	< 50 typical
Maximum Operating Voltage:	VDC	75
Operating Temperature Range:	°C	- 55 to + 125
Storage Temperature Range:	°C	- 55 to + 150

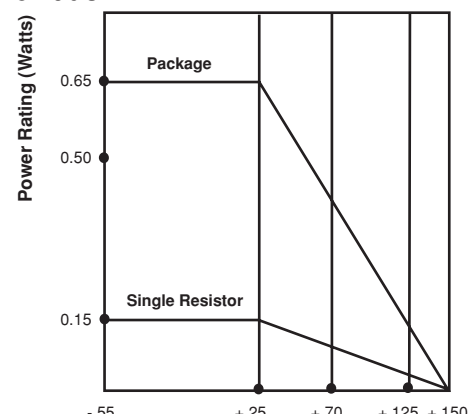
MECHANICAL SPECIFICATIONS	
Marking:	Model number, schematic number, value tolerance, pin 1 indicator, date code.
Marking Resistance to Solvents:	Permanency testing per MIL-STD-202 Method 215.
Solderability:	Per MIL-STD-202, Method 208E.
Terminals:	Per MIL-STD-1276 DFPxx-11, DFPxx-12 = Type G (hot solder dipped). Hot solder dipped leads supplied as standard finish.
Body:	Epoxy filled ceramic sandwich

11 Schematic



Derating

12 Schematic



Derating

PERFORMANCE		
TEST	CONDITIONS	MAX. ΔR (Typical Test Lots)
Power Conditioning	1.5 x rated power, applied 1.5 hours "ON" and 0.5 hour "OFF" for 100 hours ± 4 hours at + 25°C ambient temperature	± 0.50% ΔR
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 2,000 Hz	± 0.25% 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	1.5 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)	—