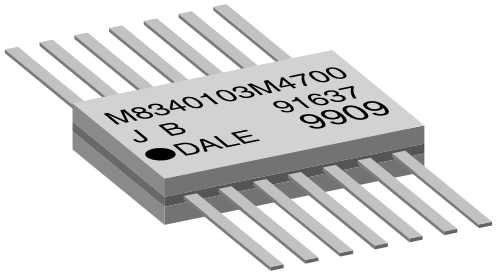
Thick Film Resistor Networks, Military, MIL-PRF-83401 Qualified, Type RZ030, Schematics A (11), B (12), J (15)



FEATURES

- 11, 12, 15 Schematics; hot-solder dipped
- MIL-PRF-83401 qualified
- Highly stable thick film
- TCR available in "K" (± 100ppm/°C) or "M" (± 300ppm/°C) characteristic
- 100% screen tested per Group A, Subgroup 1 of MIL-PRF-83401
- 0.065" [1.65mm] height for high density packaging

STANDARD ELECTRICAL SPECIFICATIONS

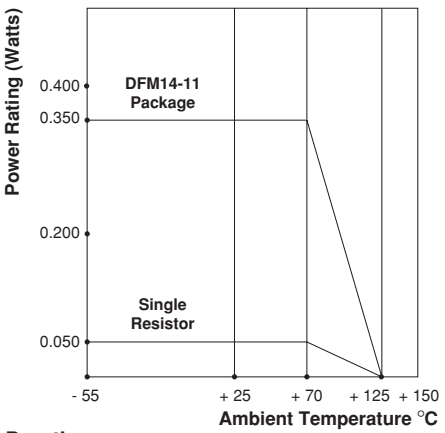
MODEL	POWER RATING		CIRCUIT	LIMITING ELEMENT	TEMPERATURE[1]	STANDARD[2]	RESISTANCE
	$P_{70°C}$ ELEMENT	$P_{70°C}$ PACKAGE	SCHEMATIC	VOLTAGE MAX	COEFFICIENT	TOLERANCE	RANGE
	W	W		V ≅	ppm/°C	%	Ω
DFM	0.050	0.350	11	50	"K" = 100 / "M" = 300	2	10R0 – 1M0
	0.025	0.325	12	50	"K" = 100 / "M" = 300	2	10R0 – 1M0
	0.015	0.350	15	50	"K" = 100 / "M" = 300	2	see table

[1] Temperature Range: - 55°C to + 125°C

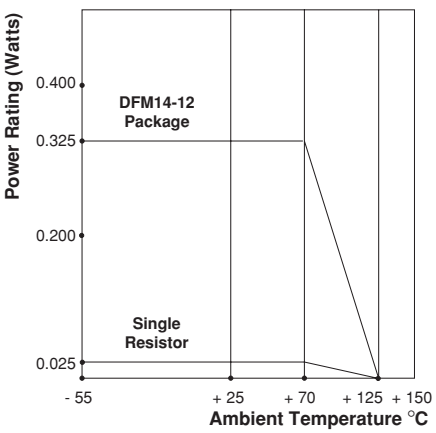
[2] ± 1% and ± 5% tolerance available

- Consult factory for stocked values

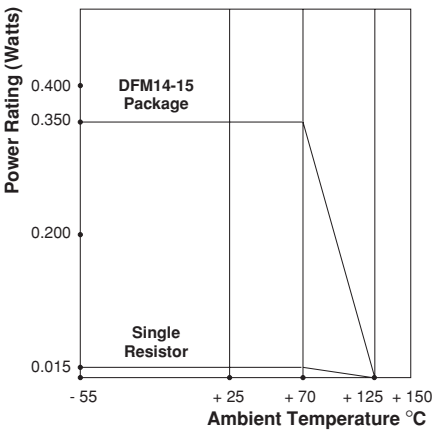
11 Schematic



12 Schematic

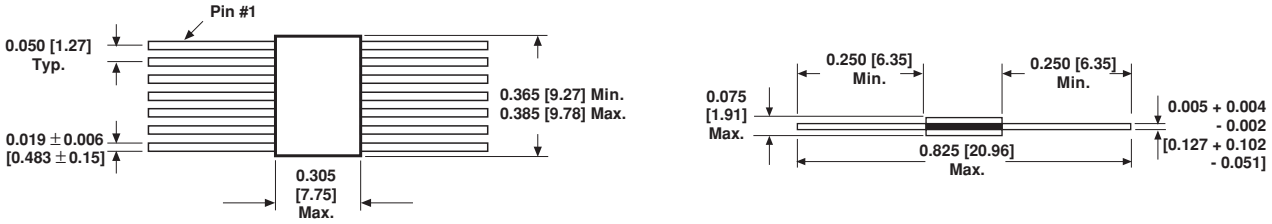


15 Schematic



Derating

DIMENSIONS in inches [millimeters]



ORDERING INFORMATION - MILITARY PART NUMBER

11 SCHEMATIC	M8340103	M	6801	G	A
12 SCHEMATIC	M8340103	M	6801	G	B
15 SCHEMATIC	M8340103	K	A001*	G	J
	DETAIL SPEC. NO.	CHARACTERISTIC	RESISTANCE VALUE	TOLERANCE	SCHEMATIC
	M8340103 =14 Pin Flat Pack RZ030	"K" = ± 100ppm/°C "M" = ± 300ppm/°C	The first three digits are significant figures and the last digit specifies the number of zeros to follow = 11 and 12 schematics. For 15 schematic see footnote (*).	F = ± 1% G = ± 2% J = ± 5%	

EXAMPLE:

M8340103M6801GA = A flat pack resistor network with 14 pins, a TCR of ± 300ppm/°C, resistance value of 6.8k ohm, tolerance of ± 2% and to schematic "A".

EXAMPLE:

M8340103M6801GB = A flat pack resistor network with 14 pins, a TCR of ± 300ppm/°C, resistance value of 6.8k ohm, tolerance of ± 2% and to schematic "B".

EXAMPLE:

M8340103KA001GJ = A flat pack resistor network with 14 pins, a TCR of ± 100ppm/°C, R1 resistance value of 82 ohm, R2 resistance value of 130 ohm, tolerance of ± 2% and schematic "J".

DFM14-11, 12, 15 = Type G (hot-solder dipped).

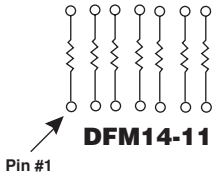
Hot-solder dipped leads supplied as standard finish.

*** The J-schematic resistance values are specified by a 4-digit code, which comes from MIL-PRF-83401. The codes and corresponding resistance values are:**

CODE	R1 (Ohms)	R2 (Ohms)	CODE	R1 (Ohms)	R2 (Ohms)
A001	82	130	A010	330	470
A002	120	200	A011	330	680
A003	130	210	A012	1.5k	3.3k
A004	160	260	A013	3k	6.2k
A005	180	240	A014	180	270
A006	180	390	A015	270	270
A007	220	270	A016	560	560
A008	220	330	A017	560	1.2k
A009	330	390	A018	620	2.7k

CIRCUIT APPLICATIONS

11 Schematic



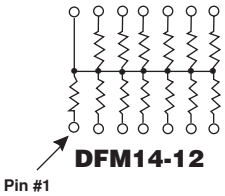
DFM14-11 (M8340103xxxxxxA)

7 isolated resistors

The DFM14-11 provides the user with 7 nominally equal resistors with each resistor isolated from all others. Commonly used in the following applications:

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

12 Schematic



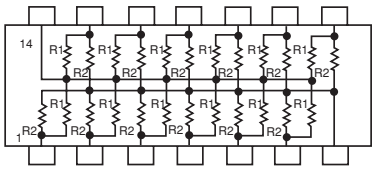
DFM14-12 (M8340103xxxxxxB)

13 resistors with one pin common

The DFM14-12 provides the user with a choice of 13 nominally equal resistors, each connected to a common pin. Commonly used in the following applications:

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

15 Schematic



DFM14-15 (M8340103xxxxxxJ)

12 pairs of resistors

The DFM14-15 provides the user with a choice of 12 pairs of R1/R2 resistor values for pulse squaring and TTL dual-line terminating requirements.

MECHANICAL SPECIFICATIONS	
Marking Resistance to Solvents	Permanency testing per MIL-PRF-83401
Solderability	Per MIL-PRF-83401.
Terminals	Per MIL-STD-1276 DFM14-11, 12, 15 = Type G (hot solder dipped) Hot solder dipped leads supplied as standard finish.
Body	Epoxy filled ceramic sandwich

PERFORMANCE		
TEST	**CONDITIONS**	**MAX. ΔR (Typical Test Lots)**
Power Conditioning	1.5 x rated power, applied 1.5 hours “ON” and 0.5 hours “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 (Char. K) ± 0.50% ΔR (Char. M)
Low Temperature Operation	45 minutes at full rated working voltage at - 65°C	± 0.25% ΔR (Char. K) ± 0.50% ΔR (Char. M)
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	± 0.50% ΔR (Char. K) ± 2.0% ΔR (Char. M)
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)	