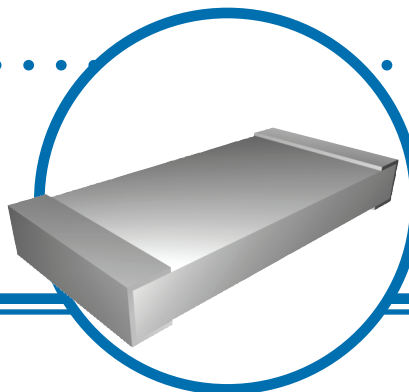


Precision Military and Space Qualified Chip Resistors



MIL-CHIP Series

- Now qualified to MIL-PRF-55342 Space Level T
- Seven industry standard sizes available
- MIL-PRF-55342 Characteristics E, H, K, and M
- MIL-PRF-55342 extended reliability levels C, M, P, R, S and T



MIL-PRF-55342 Qualified Product Listing (QPL)

Style Size	Technology	MIL-PRF-55342 Characteristic	Tolerance	Resistance Range (Ω)	Rated Voltage* (V)	Rated Power (mW)	Reliability Level	Termination Type
Style 11 RM0402	Thin Film PFC Series (TaNFilm®)	E, H, K, M	±0.1%	100R - 30K	30	50	C, M, P, R, S	Type 'B' Sn/Pb solder over nickel barrier
			±1%	49R9 - 29K				
			±2%, ±5%	51R0 - 30K				
			±10%	51R0 - 27K				
Style 12 RM0603	Thin Film PFC Series (TaNFilm®)	E, H, K, M	±0.1%, ±1%	10R0 - 59K	50	100	C, M, P, R, S, T	
			±2%, ±5%, ±10%	10R0- 56K				
Style 06 RM0705	Thin Film PFC Series (TaNFilm®)	E, H, K, M	±0.1%	10R0 - 125K	50	150	C, M, P, R, S, T	
			±1%	10R0- 124K				
			±2%, ±5%, ±10%	10R0- 120K				
Style 07 RM1206	Thin Film PFC Series (TaNFilm®)	E, H, K, M	±0.1%	100R - 500K	100	250	C, M, P, R, S, T	
			±1%	10R0- 499K				
			±2%, ±5%, ±10%	10R0- 470K				
Style 04 RM1505	Thin Film PFC Series (TaNFilm®)	E, H, K, M	±0.1%	100R - 500K	125	150	C, M, P, R, S, T	
			±1%	10R0- 499K				
			±2%, ±5%, ±10%	10R0- 470K				

*Note: Voltage shall not exceed $\sqrt{P \times R}$.

General Note

IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

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MIL-CHIP Series Issue January 2011 Sheet 1 of 3

Precision Military Qualified Chip Resistors



MIL-PRF-55342 Qualified Product Listing (QPL) (continued)

Style Size	Technology	MIL-PRF-55342 Characteristic	Tolerance	Resistance Range (Ω)	Rated Power (mW)	Rated Voltage* (V)	Reliability Level	Termination Type
Style 07 RM1206	Thick Film TMC Series	K, M	$\pm 1\%$, $\pm 2\%$, $\pm 5\%$, $\pm 10\%$	1R0 - 10M	250	100	C, M, P, R, T	Type `B` Sn/Pb solder over nickel barrier
Style 08 RM2010	Thick Film TMC Series	K, M	$\pm 1\%$, $\pm 2\%$, $\pm 5\%$, $\pm 10\%$	1R0 - 15M	800	150		
Style 09 RM2512	Thick Film TMC Series	K, M	$\pm 1\%$, $\pm 2\%$, $\pm 5\%$, $\pm 10\%$	1R0 - 15M	1000	200		

*Note: Voltage shall not exceed $\sqrt{P \times R}$.

Physical Data

	L	W	H	a	b
0402	0.040" ± 0.002	0.021" ± 0.002	0.012" ± 0.003	0.008" ± 0.002	0.010" ± 0.002
0603	0.063" ± 0.004	0.031" ± 0.004	0.020" ± 0.004	0.008" ± 0.004	0.008" ± 0.004
0805	0.081" ± 0.005	0.050" ± 0.005	0.020" ± 0.006	0.016" ± 0.008	0.016" ± 0.008
1505	0.155" ± 0.007	0.050" ± 0.005	0.025" ± 0.003	0.015" ± 0.008	0.015" ± 0.008
1206 (Thin Film)	0.126" ± 0.006	0.063" ± 0.005	0.024" ± 0.004	0.016" ± 0.008	0.016" ± 0.008
1206 (Thick Film)	0.126" ± 0.008	0.063" ± 0.005	0.024" ± 0.004	0.020" $+0.005/-0.010$	0.020" $+0.005/-0.010$
2010	0.209" ± 0.009	0.098" ± 0.005	0.028" ± 0.005	0.020" ± 0.005	0.020" ± 0.005
2512	0.259" ± 0.009	0.124" ± 0.005	0.028" ± 0.005	0.020" ± 0.005	0.020" ± 0.005

Precision Military Qualified Chip Resistors



Environmental Data

Environmental Test MIL-PRF-55342	Thick Film Performance		Thin Film Performance	
	MIL-PRF-55342 Characteristic K	Typical IRC ΔR	MIL-PRF-55342 Characteristic H	Typical IRC ΔR
Thermal Shock	$\pm 0.5\%$	$\pm 0.04\%$	$\pm 0.25\%$	$\pm 0.02\%$
Low Temperature Operation	$\pm 0.25\%$	$\pm 0.01\%$	$\pm 0.25\%$	$\pm 0.01\%$
Short-time Overload	$\pm 0.25\%$	$\pm 0.03\%$	$\pm 0.10\%$	$\pm 0.01\%$
High Temperature Exposure	$\pm 0.5\%$	$\pm 0.05\%$	$\pm 0.50\%$	$\pm 0.03\%$
Resistance to Solder	$\pm 0.25\%$	$\pm 0.09\%$	$\pm 0.25\%$	$\pm 0.01\%$
Moisture Resistance	$\pm 0.5\%$	$\pm 0.06\%$	$\pm 0.40\%$	$\pm 0.03\%$
Life	$\pm 2.0\%$	$\pm 0.10\%$	$\pm 2.0\%$	$\pm 0.03\%$

MIL-PRF-55342 Ordering Data

D55342
H
07
B
1E00
S

Military Designator

M55342 for styles RM0402, RM0603, RM0705(0805), RM1505, RM2010, and RM2512
D55342 for style RM1206

Characteristic

E, H, K and M per MIL-PRF-55342

Specification Number

04 for style RM1505; 06 for style RM0705(0805); 07 for style RM1206
08 for style RM2010; 09 for style RM2512; 11 for Style RM0402, 12 for style RM0603

Termination

Termination B per MIL-PRF-55342

Resistance and Tolerance

Resistance and tolerance code per MIL-PRF-55342

Product Level Designator

Product level C, M, P, R, S and T per MIL-PRF-55342

Packaging

Standard order packaging is 8mm or 12mm tape per EIA 481. Conductive waffle pack packaging is also available.

For additional information or to discuss your specific requirements, please contact our Applications team using the contact details below.