## **Precision Military and Space Qualified Chip Resistors**



#### **MIL-CHIP Series**

#### **Features**

- Now qualified to MIL-PRF-55342 Space Level T
- Four 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		n 95 E, H, K, M 9)	±0.1%	100R - 30K		50	C, M, P, R, S	
	Thin Film PFC Series (TaNFilm®)		±1%	49R9 - 29K	20			
			±2%, ±5%	51R0 - 30K	- 30			
					±10%	51R0 - 27K		
Style 12 RM0603	Thin Film PFC Series (TaNFilm®)	s E, H, K, M	±0.1%, ±1%	10R0 - 59K	50	100	C, M, P, R, S, T	
			±2%, ±5%, ±10%	10R0- 56K	50	100		
Style 06 RM0705	Thin Film PFC Series (TaNFilm®)		±0.1%	10R0 - 125K				Type `B´
		E, H, K, M	±1%	10R0- 124K	50 150		C, M, P, R, S, T	Sn/Pb solder over nickel
	``````		±2%, ±5%, ±10%	10R0- 120K				barrier
Style 07 RM1206	Thin Film PFC Series (TaNFilm®)		±0.1%	100R - 500K				
		E, H, K, M	±1%	10R0- 499K	100 250		C, M, P, R, S, T	
			±2%, ±5%, ±10%	10R0- 470K				

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

General Note

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

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#### **Physical Data**

+		<u> </u>			
	ТОР	₩ BOT		SIDE → b ←	H ↓ -
	L	W	н	а	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	0.012" ±0.005	0.015″ ±0.005
0805	0.081″ ±0.005	0.050" ±0.005	0.020" ±0.006	0.016" ±0.008	0.016" ±0.008
1206	0.126″ ±0.006	0.063" ±0.005	0.024" ±0.004	0.016″ ±0.008	0.016″ ±0.008

#### **Environmental Data**

Environmental Test	Thin Film Performance				
MIL-PRF-55342	MIL-PRF-55342 Characteristic H	Typical IRC ∆R			
Thermal Shock	±0.25%	±0.02%			
Low Temperature Operation	±0.25%	±0.01%			
Short-time Overload	±0.10%	±0.01%			
High Temperature Exposure	±0.50%	±0.03%			
Resistance to Solder	±0.25%	±0.01%			
Moisture Resistance	±0.40%	±0.03%			
Life	±2.0%	±0.03%			

### Packaging

Standard packing for all styles is tape and reel in a quantity of 500 pieces. Optionally the reel quantity may be 1000 pieces, and product level T (space) has an additional option of 300 pieces per reel.

A service of packing to waffle trays of 100 pieces is available for styles 12, 06 and 07.

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Т

Space level

**MIL-CHIP Series** 

#### **Ordering Procedure**

Example: D55342H07B1E00S (Style RM1206, ±50ppm/°C, specification number 07, SnPb termination, 1kΩ, ±1%, failure rate 0.001%/1000 hours)

D 5 5 3 4 2	H 0 7	B 1 E 0 0 9
1	2 3	4 5 6

1 Military Designator		2 Characteristic		3 Specification		4 Termination		5 Value & Tolerance		6 Product Level	
	0402,	Е	25ppm/°C	11	0402	В	SnPb	4 character code.	С	Non-ER	
M55342	0603,	Н	50 ppm/°C	12	0603			Letter code marks	М	1%/1000hrs	
	0805	К	100 ppm/°C	06	0805			decimal position and	Ρ	0.1%/1000hrs	
D55342	1206	Μ	300 ppm/°C	07	1206			indicates multiplier	R	0.01%/1000hrs	
								and tolerance - see	S	0.001%/1000hrs	
								table below.	т	Space lovel	

Value	&	Multiplier				
Tolerance	Code	x1	x 1000	x1000,000		
	0.1%	А	В	С		
	1%	D	E	F		
Tolerance	2%	G	Н	Т		
	5%	J	К	L		
	10%	М	N	Р		

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Authorized Distributor

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#### **TT Electronics**:

D55342K07B4E75F	D55342E07B258BR	M55342K06B47K0R	M55342K12B10B0T	M55342E12B22H0R
M55342E12B2B00T	M55342K06B3B40R	M55342K06B221DR	M55342K06B100JR	M55342E11B9B31R
D55342K07B1E50S	M55342K12B1E54R	M55342E12B475AR	M55342E11B10B2R	M55342K06B9E09S
M55342E06B10B0R	M55342E12B10B0R	M55342E12B20B0R	D55342H07B34E8S	D55342H07B40E2S
D55342H07B53E6S	D55342H07B845DS	D55342H07B976DS	D55342K07B237BR	D55342H07B28E0S
M55342E12B40B2R	M55342K12B1E00R	D55342K07B8E66P	D55342E07B43B0R	M55342E12B48B7R
D55342E07B100DR	M55342H12B750DR	M55342K12B4E22R	M55342E12B24B9R	M55342E11B10B0S
D55342K07B33D2R	D55342H07B44B2R	M55342K12B47K0R	M55342K12B6E81R	D55342K07B2B58T
M55342K06B10D0S	M55342K12B6E80S	D55342E07B33B2R	M55342K06B47B0R	M55342E11B5B23R