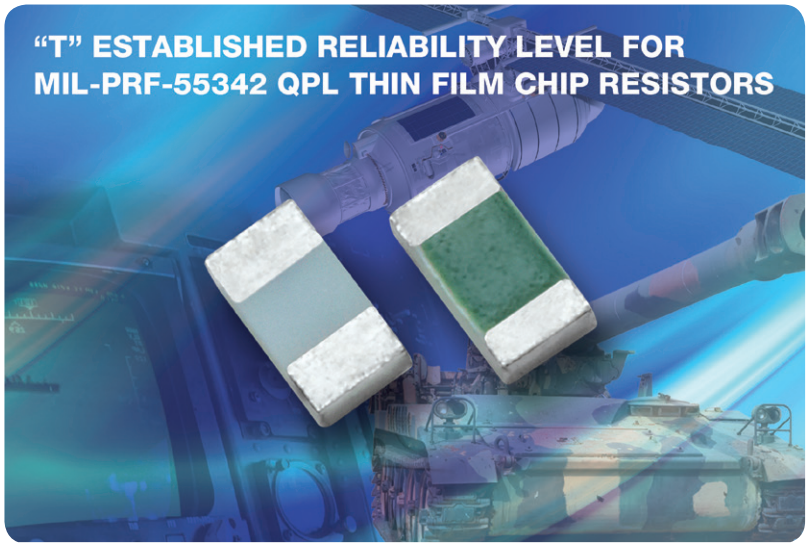
THIN FILM SMD CHIP RESISTOR

E/H (T-Level M/D55342)

QPL MIL-PRF-55342 Qualified
Thin Film, Surface-Mount Chip Resistor



KEY BENEFITS

- QPL approved for "T" level high-reliability space applications for characteristics E, H, K, L, M
- The product now receives a burn-in prior to shipment
- Materials are approved for space outgassing limits
- Verification to ASTM E-595 (Standard Test Method for Total Mass Loss and Collected Volatile Condensable Materials from Outgassing in a Vacuum Environment)

APPLICATIONS

- Aircraft
- Avionics
- Satellites
- Space communications systems
- Missile systems
- Weaponry and other combat equipment
- Space exploration

RESOURCES

- Datasheet: E/H (T-Level M/D55342) - www.vishay.com/doc?60060
- For technical questions contact thinfilm@vishay.com

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Thin Film MIL-PRF-55342 established reliability "T" level chip resistors feature a thin film resistor element and with all sputtered wraparound terminations that provide excellent adhesion and dimensional uniformanity. They are ideal in applications requiring stringent performance requirements. Established reliability is assured through 100 % screening and extensive environmental testing for every lot that includes complete 100 % group A, power conditioning and group B lot testing performed for T-level product assurance.

FEATURES

- T-level (space) qualified
- Passes outgassing requirements of ASTM-E595
- TCR to ± 25 ppm/°C
- Tolerances to ± 0.1 %
- 100 % power conditioning

TYPICAL PERFORMANCE

	ABSOLUTE
TCR	25
TOL.	0.1

STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Tamelox resistor film (passivated nichrome)	-
Resistance Range	10 Ω to 6.19 MΩ (size dependant)	-
TCR: Absolute	25 ppm/°C (E), 50 ppm/°C (H)	-55 °C to +125 °C
Tolerance: Absolute	± 0.1 %	+25 °C
Stability: Absolute	ΔR ± 0.02 %	2000 h at +70 °C
Voltage Coefficient	< 0.1 ppm/V	-
Working Voltage	40 V to 125 V	-
Operating Temperature Range	-55 °C to +150 °C	-
Storage Temperature Range	-55 °C to +150 °C	-
Noise	< - 25 dB	-
Thermal EMF	< 0.1 µV/°C	-
Shelf Life Stability: Absolute	ΔR ± 0.01 %	1 year at +25 °C

COMPONENT RATINGS

CASE SIZE	MAX. WORKING VOLTAGE (V)	POWER RATING (mW)	RESISTANCE RANGE (Ω) BY CHARACTERISTICS TOLERANCE			
			H, K, L, M (0.1 %, 0.25 %, 0.5 %)	H, K, L, M (1 %, 2 %, 5 %)	E (0.1 %, 0.25 %, 0.5 %)	E (1 %, 2 %, 5 %)
M55342X01	40	50	20 to 150K	22 to 150K	49.9 to 150K	51 to 150K
M55342X02	40	125	20 to 301K	20 to 300K	49.9 to 301K	51 to 300K
M55342X03	75	200	10 to 649K	10 to 649K	49.9 to 649K	51 to 680K
M55342X04	125	150	10 to 1.69M	10 to 1.69M	49.9 to 1.69M	51 to 1.80M
M55342X05	175	225	10 to 3.16M	10 to 3.30M	49.9 to 3.16M	51.0 to 3.30M
M55342X06	50	150	10 to 475K	10 to 470K	49.9 to 475K	51 to 470K
D55342X07	100	250	10 to 1.50M	10 to 1.50M	49.9 to 1.50M	51 to 1.50M
M55342X08	150	800	10 to 4.02M	10 to 3.90M	49.9 to 4.02M	51.0 to 3.90M
M55342X09	200	1000	10 to 6.19M	10 to 6.20M	49.9 to 6.19M	51.0 to 6.20M
M55342X10	75	500	49.9 to 1.00M	51 to 1.00M	49.9 to 1.00M	51 to 1.00M
M55342X11	30	50	20 to 100K	22 to 100K	49.9 to 100K	51 to 100K
M55342X12	50	100	10 to 258K	10 to 261K	49.9 to 258K	49.9 to 261K

Revision 09-Sep-14