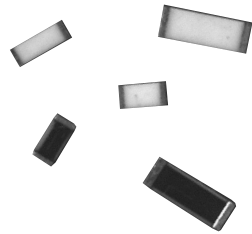


QPL MIL-PRF-55342 Qualified Thick Film Chip Resistors



Actual Size
M55342/02

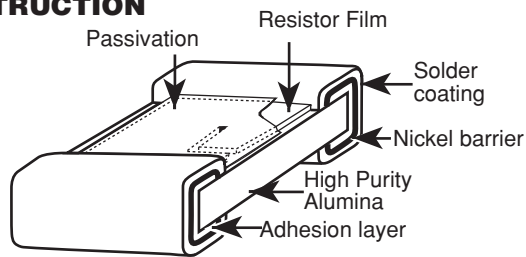
Thick Film MIL chip resistors feature an all sputtered wraparound termination for excellent adhesion and dimensional uniformity. Established reliability is assured through 100% screening and extensive lot testing.

FEATURES

- Wraparound terminations featuring a high temperature thin film adhesion layer covered with a leach resistant nickel barrier layer for + 150°C operating conditions
- Established reliability: "R" failure rate level
- High purity alumina substrate for high power dissipation
- Ruthenium-based cermet thick film for dependable performance
- Fired-on glass passivation
- Complete MIL testing available in-house
- Antistatic waffle pack or tape and reel packaging available

SURFACE MOUNT CHIPS

CONSTRUCTION



TYPICAL PERFORMANCE

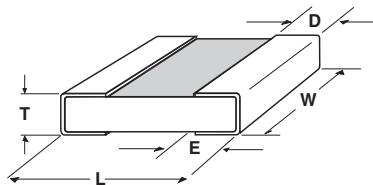
	ABS
TCR	100
TOL	1.0

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	CONDITIONS
MATERIAL	RUTHENIUM	
Absolute TCR:	$\pm 100\text{ppm}/^\circ\text{C}, \pm 300\text{ppm}/^\circ\text{C}$	- 55°C to + 125°C
Absolute Tolerance:	$\pm 1\%, \pm 2\%, \pm 5\%, \pm 10\%$	+ 25°C
Power Rating:	Resistor	50 to 100mW
Stability (ΔR Ratio)	0.5%	2000 hrs. @ + 70°C
Voltage Coefficient	< 10ppm/Volt	
Working Voltage	40 to 50 Volts	
Operating Temperature Range	- 55°C to + 125°C	
Noise	- 20 to + 10dB	
Thermal EMF	0.2 $\mu\text{V}/^\circ\text{C}$	
Shelf Life Stability	200ppm	1 year @ 25°C

CASE SIZE	POWER RATING (mW)	MAX. WORKING VOLTAGE	RESISTANCE RANGE - (OHMS)	
			($\pm 1\%$)	($\pm 2, \pm 5, \pm 10$ & 20%)
M55342/02	50	40	20 - 294K	20 - 470K
M55342/03	100	40	20 - 294K	20 - 470K
M55342/04	150	40	20 - 499K	20 - 1M
M55342/06	100	50	20 - 499K	20 - 1M

VISHAY THIN FILM • FRANCE +33.4.93.37.28.24 FAX: +33.4.93.37.27.31 • GERMANY +49.9287.710 FAX: +49 9287.70435 • ISRAEL +972.3.557.0945 FAX: +972.3.558.9121
 • ITALY + 39.2.300.11919 FAX: +39.2.300.11999 • JAPAN +81.42.729.0661 FAX: +81.42.729.3400 • SINGAPORE +65.788.6668 FAX: +65.788.0988
 • SWEDEN +46.8.594.70590 FAX: +46.8.594.70581 • UK +44 191 514 8237 FAX: +44 1953 457 722 • USA: (610) 407-4800 FAX: (610) 640-9081

DIMENSIONS in inches



SURFACE MOUNT CHIPS

CASE SIZE	TERM.	L	W	T	D	E
M55342/02	B	0.055 ± 0.006	0.050 ± 0.005	0.012 to 0.033	0.010 ± 0.005	0.015 ± 0.005
M55342/03	B	0.105 ± 0.007	0.050 ± 0.005	0.015 to 0.033	0.015 ± 0.005	0.015 ± 0.005
M55342/04	B	0.155 ± 0.007	0.050 ± 0.005	0.015 to 0.033	0.015 ± 0.005	0.015 ± 0.005
M55342/06	B	0.080 ± 0.006	0.050 ± 0.005	0.015 to 0.033	0.015 ± 0.005	0.015 ± 0.005

How to Order

Series	TCR Characteristic	Case Size	Termination	Value and Tolerance	Failure Rate
M55342	K = ±100 ppm/°C	02	B = solderable wraparound (nickel barrier)	Three digits and a letter. Letter identifies tolerance, acts as multiplier and decimal locator.	M = 1.0% per 1000 hrs.
	M = ±300 ppm/°C	03			
		04			P = 0.1% per 1000 hrs.
		06			R = 0.01% per 1000 hrs.
				Tolerance 1% 2% 5% 10% Multiplier (X1Ω) D G J M (X1K Ω) E H K N (X1M Ω) F T LP	C = non ER version

Example: **M55342K06B5E60R** calls out QPL nickel barrier solderable wraparound termination chip resistor, 0705 size, 5600 ohms ±1.0% tolerance, ±100 ppm/°C TCR, R-Failure Rate of 0.01% per 1000 hours.