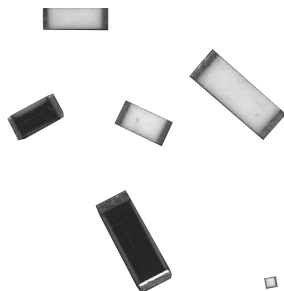


Low Value Thin Film Chip Resistors

SURFACE MOUNT CHIPS



Actual Size, 0805

With extremely low resistances and high power capabilities, VISHAY's proven and unique ultra-low value resistors can be used in your hybrid or surface mount applications. These resistors are available with solderable or weldable terminations.

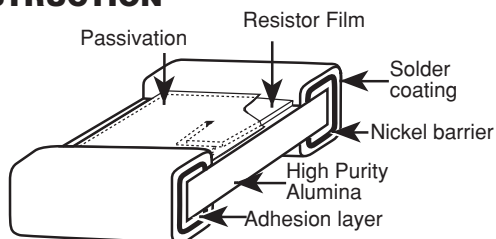
FEATURES

- Homogeneous **nickel alloy** film
- No inductance for high frequency application
- Alumina substrates for high power handling capability
- Stable film/high power capability
- Pre-soldered or gold terminations

TYPICAL PERFORMANCE

	ABS
TCR	300
TOL	1.0

CONSTRUCTION



VALUE AND MINIMUM TOLERANCE

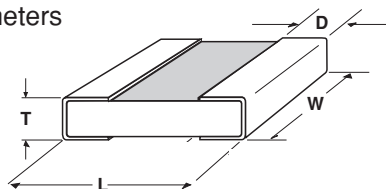
VALUE (OHMS)	MINIMUM TOLERANCE
0.1	± 2.0%
0.25	± 1.0%
0.5	± 1%
1.0	± 1.0%
2.0	± 1.0%
10.0	± 1.0%

STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
CASE SIZES	0505, 0705, 0805, 1005, 1020, 1206, 1505, 2010, 2512	
Resistance Range	0.03 ohm to 10.0 ohm	
Absolute TCR:	± 300ppm/°C	- 55°C to + 125°C
Noise	< - 30dB Typical	
Power Rating	up to 2.0 Watt	@ + 70°C

CASE SIZE	0505	0705	0805	1005	1020	1206	1505	2010	2512
Power Rating - mW	125	200	200	250	1000	330	500	1000	2000
Min. Resistance -ohms	0.05	0.10	0.10	0.15	0.03	0.10	0.25	0.17	0.18

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
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**DIMENSIONS** in inches and millimeters

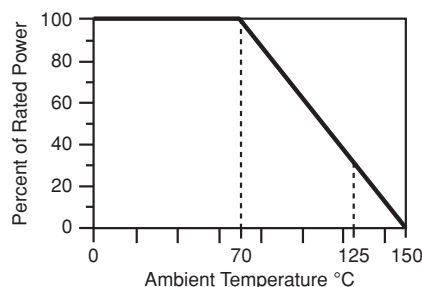
CASE SIZE	Size - Inches and mm						
	L		W		T		D
	INCHES	MM	INCHES	MM	MAX.	INCHES	MM
	+ 0.010/- 0.005	+ 0.25/- 0.13	± 0.005	± 0.13		+ 0.010/- 0.005	+ 0.25/- 0.13
0505	0.050	1.27	0.050	1.27	0.020 0.51	0.016	0.41
0805*, 0705*	0.075	1.91	0.050	1.27	0.020 0.51	0.021	0.53
1005	0.100	2.54	0.050	1.27	0.030 0.76	0.021	0.53
1020	0.100	2.54	0.200	5.08	0.030 0.76	0.015	0.38
1206	0.126	3.20	0.063	1.60	0.030 0.76	0.020	0.51
1505	0.150	3.81	0.050	1.27	0.030 0.76	0.021	0.53
2010	0.200	5.08	0.100	2.54	0.030 0.76	0.019	0.48
2512	0.250	6.35	0.125	3.18	0.030 0.76	0.019	0.48

MECHANICAL SPECIFICATIONS

Resistive Element	Nickel Alloy
Substrate Material	Alumina
Terminals	Pre-soldered or gold
Lead (Pb)-Free Option	96.5% Sn, 3.0% Ag, 0.5% Cu
Lead (Pb)-Free Finish	Hot Solder Dip

ENVIRONMENTAL TEST

TEST	10HM ΔR ±%
Thermal Shock	0.06
Short Term Overload	0.06
Low Temperature Operation	0.03
Resistance to Solder Heat	0.05
Moisture Resistance	0.35
High Temp. Exposure	0.35
Load Life (2,000 hrs., + 70°C)	0.12
TCR	± 235ppm/°C

DERATING CURVE**How to Order**

STYLE	CASE SIZE	TCR CHARACTERISTIC	OHMIC VALUE	TOLERANCE	TERMINATION	PACKAGE
L = Low value Wraparound Chip Resistor	0505	M = ±300 ppm/°C S = Special	The first 3 digits are significant figures and the last digit specifies the number of zeros to follow "R" designated the decimal point e.g. 0R10 = 0.1 ohms 1R60 = 1.6 ohms	F = ±1.0% G = ±2.0% H = ±3.0% J = ±5.0% K = ±10.0% L = ±20.0% S = Special	B = Solderable (solder coat w/ nickel barrier) G = Epoxy/ Solderable (Au over Ni) W = Wire bondable Gold (Au) S = Lead (Pb)-Free	T = Tape & Reel W = Waffle Pack
	0805*					
	1005					
	1020					
	1206					
T = Topside Contacts	1505					
	2010					
	2512					

• 0705 and 0805 are the same (only use 0805 when ordering)

Example: L1206M1R00HBT is a low value wraparound chip resistor, 0.126" x 0.063" with a TCR of ±300 ppm/°C, a value of 1ohm, ±3% tolerance with a solder coated nickel barrier termination, on tape and reel packaging.

Lead (Pb)-Free Example: L1206MXXXXFST

Consult factory for other sizes.

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