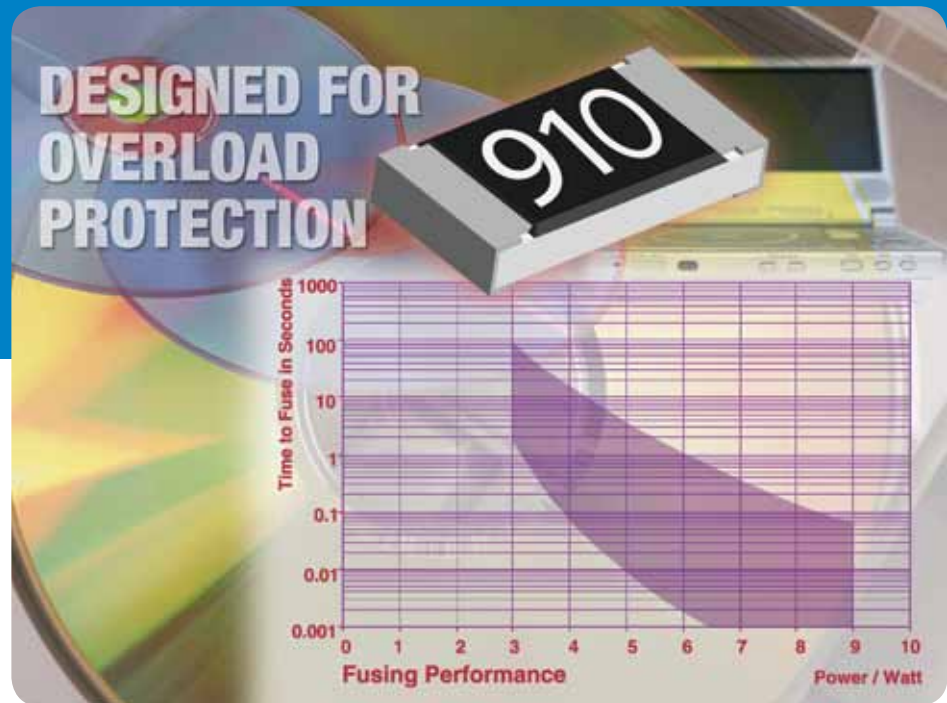




THIN FILM RESISTOR

M25SI



Fusible Thin Film Chip Resistor

KEY BENEFITS

- Designed for overload protection at constant voltage
- Medium- to fast-reacting fuse
- Special protective top coat
- Flame-retardant
- Suitable for automatic high-speed insertion
- More cost-effective than a combination of glass fuse and resistor

APPLICATIONS

- Battery chargers
- Cordless phones
- DVD players
- Power supplies
- Circuit function testing

Datasheet is available on our web site at www.vishay.com
for M25SI - <http://www.vishay.com/doc?20031>

Fusible Thin Film Chip Resistor

FEATURES

- Metal film on high quality ceramic
- Special protective top coat
- Flame retardant
- Sn solder contacts on Ni barrier layer
- Fusible resistor for constant voltage
- Automatic placement compatibility
- Compliant to RoHS directive 2002/95/EC



M25SI fusible thin film chip resistors are designed for overload protection in modern professional electronics. Typical applications include automotive, telecommunication and industrial equipment.

METRIC SIZE	
INCH:	1206
METRIC:	RR 3216M

TECHNICAL SPECIFICATIONS	
DESCRIPTION	M25SI
Metric size	RR 3216M
Resistance range	5 Ω to 3.9 kΩ
Resistance tolerance	± 5 %
Temperature coefficient	± 100 ppm/K
Climatic category (LCT/UCT/days)	55/125/55
Rated dissipation, P ₇₀ (1)	0.25 W
Limiting element voltage, U _{max} , DC/AC _{rms}	$\sqrt{P \times R}$
Maximum permissible film temperature	125 °C
Insulation voltage (1 min), U _{ins} , DC/AC _{peak}	> 300 V
Thermal resistance (2)	≤ 220 K/W
Insulation resistance	> 10 ⁹ Ω
Failure rate	≤ 1 x 10 ⁻⁹ h ⁻¹
E-Series	24

Notes
 (1) The power dissipation on the resistor generates a temperature rise against the local ambient, depending on the heat flow support of the printed-circuit board (thermal resistance). The rated dissipation applies only if the permitted film temperature is not exceeded. Furthermore, a high level of ambient temperature or of power dissipation may raise the temperature of the solder joint, hence special solder alloys or board materials may be required to maintain the reliability of the assembly.
 (2) Measuring conditions in accordance with EN 14040-1-801

- Marking: 3 digits
- Tolerance 1 % on request
- Beige top coat

PULSE TEST DATA	
Pulse power (square pulse)	0.9 W
Pulse duration t _i	100 μs
Pulse pause t _p	100 ms
Number of pulses	10 ⁵
Drift after pulse test	< 0.1 %

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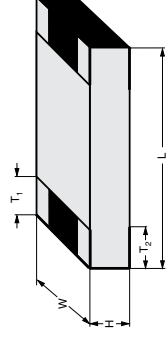
For technical questions, contact thinfilmchip@vishay.com

PART NUMBER AND PRODUCT DESCRIPTION (1)																
PART NUMBER: M251206BB9109JP500																
M	2	5	1	2	0	6	B	B	1	0	9	J	P	5	0	0
MODEL/SIZE	SPECIAL CHARACTER	TC	VALUE	TOLERANCE	PACKAGING	SPECIAL										
M251206	B = SI	B = ± 100 ppm/K	3 digit value 1 digit multiplier	J = ± 5 %	P5	Up to 2 digits 00 = Standard										
MULTIPLIER 8 = "10" ⁻⁸ 9 = "10" ⁻⁹ 0 = "10" ⁰ 1 = "10" ¹																
PRODUCT DESCRIPTION: M25SI 100 91R 5% P5																
M25SI	100	91R	5%	TOLERANCE	P5	PACKAGING						P5				
MODEL	TCR	RESISTANCE VALUE	91R = 91 Ω	± 5 %												
M25SI																

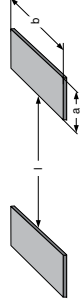
Note

(1) Products can be ordered using the PART NUMBER or PRODUCT DESCRIPTION

PACKAGING						
MODEL	TAPE WIDTH [mm]	PITCH	REEL DIAMETER [mm/inch]	PIECES PER REEL	PACKAGING CODE	TYPE OF CARRIER TAPE
M25SI	8	4	180/7	5000	P5	Paper

DIMENSIONS


DIMENSIONS AND MASS									
SIZE	H (mm)	L (mm)	W (mm)	T ₁ (mm)	T ₂ (mm)	MASS (mg)			
INCH	METRIC	1206	3216	0.55 ± 0.05	3.2 ± 0.10 / 0.20	1.6 ± 0.15	0.45 ± 0.2	0.4 ± 0.2	10

SOLDER PAD DIMENSIONS


RECOMMENDED SOLDER PAD DIMENSIONS									
SIZE	WAVE SOLDERING								
INCH	METRIC	a (mm)	b (mm)	l (mm)	l ₁ (mm)	REFLOW SOLDERING			
1206	3216	0.9	1.7	2.0	1.1	1.7	1.1	1.7	2.3

Build Vishay into your Design