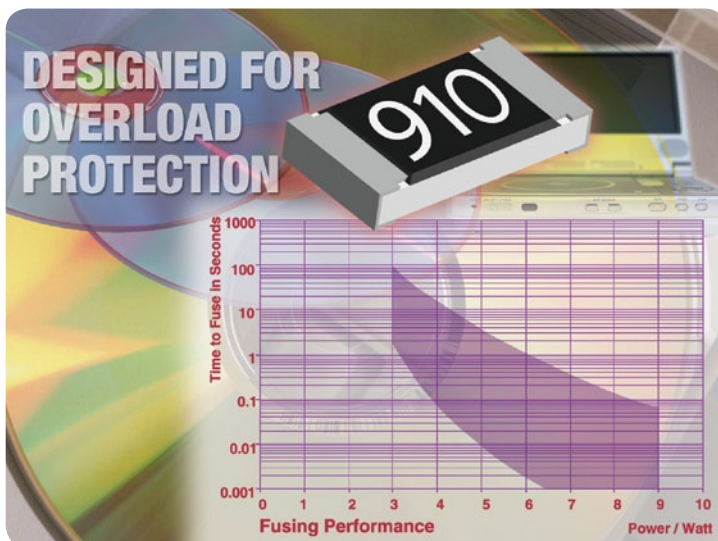


## Fusible Thin Film Chip Resistor



### 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

### RESOURCES

- Datasheet: M25SI - <http://www.vishay.com/doc?20031>
- For technical questions contact [thinfilmchip@vishay.com](mailto:thinfilmchip@vishay.com)



# THIN FILM FUSE RESISTOR

## M25SI



### Fusible Thin Film Chip Resistor



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

#### 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 2011/65/EU



**RoHS**  
COMPLIANT

#### METRIC SIZE

INCH:	1206
METRIC:	RR 3216M

#### TECHNICAL SPECIFICATIONS

DESCRIPTION	M25SI
Metric size	RR 3216M
Resistance range	5 $\Omega$ to 3.9 k $\Omega$
Resistance tolerance	$\pm 5 \%$
Temperature coefficient	$\pm 100$ ppm/K
Climatic category (LCT/UCT/days)	55/125/56
Rated dissipation, $P_{70}$ <sup>(1)</sup>	0.25 W
Limiting element voltage, $U_{max}$ DC/AC <sub>RMS</sub>	$\sqrt{P \times R}$
Maximum permissible film temperature	125 $^{\circ}$ C
Insulation voltage (1 min), $U_{ins}$ DC/AC <sub>peak</sub>	> 300 V
Thermal resistance <sup>(2)</sup>	$\leq 220$ K/W
Insulation resistance	> $10^9 \Omega$
Failure rate	$\leq 1 \times 10^{-9} h^{-1}$
E-Series	24

#### Notes

<sup>(1)</sup> 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.

<sup>(2)</sup> Measuring conditions in accordance with EN 140401-801

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

#### PULSE TEST DATA

Pulse power (square pulse)	0.9 W	0.3 W
Pulse duration $t_i$	100 $\mu$ s	100 ms
Pulse pause $t_p$	100 ms	1 s
Number of pulses	$10^5$	$10^5$
Drift after pulse test	< 0.1 %	< 0.1 %

Revision 17-Sep-09