

FEATURES

- Metal film on high quality ceramic
- Special protective top coat
- Flame retardant
- SnPb contacts on Ni barrier layer
- Fusible resistor for constant voltage
- Automatic placement compatibility

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE		POWER RATING $W_{70^{\circ}C}$	LIMITING ELEMENT VOLTAGE $V_{\cong MAX}$	TEMPERATURE COEFFICIENT ppm/K	TOLERANCE %	RESISTANCE RANGE Ω	E-SERIES
	INCH	METRIC						
M25SI	1206	3216	0.25	$\sqrt{P \times R}$	100	5	1R – 3K9	24

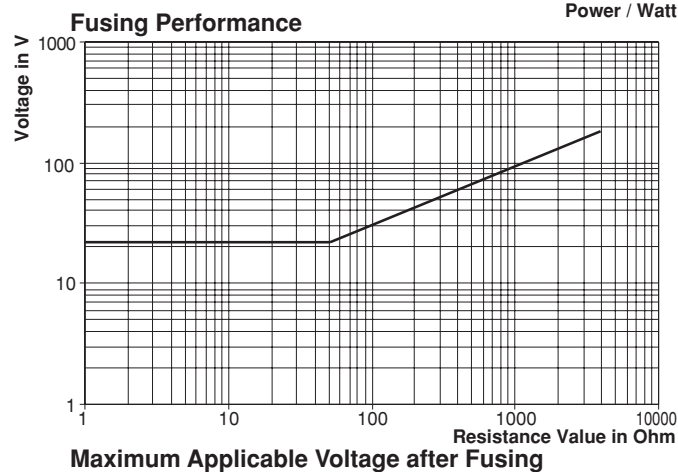
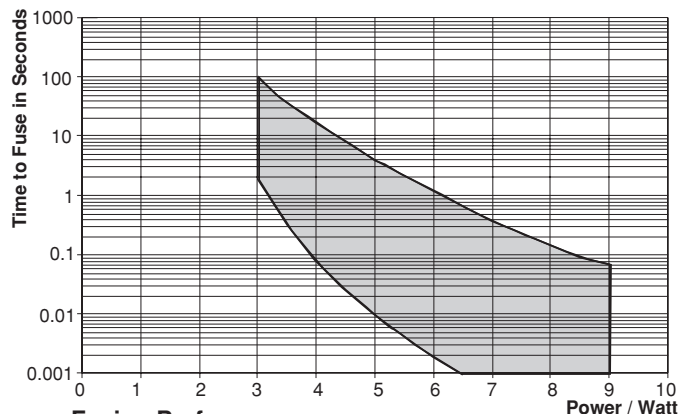
- Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material.
- Marking: 3 digits.

- Ask about extended value ranges.
- TC 50ppm/°C, Tolerance 1% on special request.
- Top coat: beige, transparent.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	M25SI
Rated Dissipation at 70°C	W	0.25
Insulation Voltage (1 min)	$V_{dc/ac peak}$	> 300
Thermal Resistance ¹⁾	K/W	$\leq 220^1$
Insulation Resistance	Ω	$> 10^9$
Category Temperature Range	°C	- 55 / + 125
Failure Rate	h^{-1}	$1 \cdot 10^{-9}$
Weight / 1000pcs	g	10

¹⁾ Measuring conditions in acc. with CECC 40401



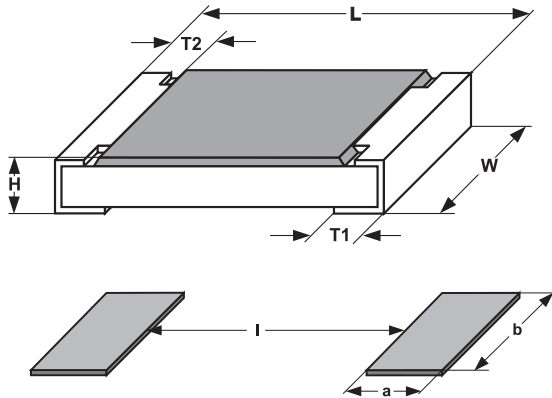
PULSE TEST DATA

Pulse Power (Square Pulse)	0.9W	0.3W
Pulse Duration t_i	100 μ s	100ms
Pulse Pause t_p	100ms	1s
Number of pulses	10^5	10^5
Drift after pulse test	< 0.1%	< 0.1%

ORDERING INFORMATION

M25SI	100	91R	5%	P5
MODEL	TC ppm / K	RESISTANCE VALUE Ω	TOLERANCE \pm %	PACKAGING P5-Papertape 5000 pcs

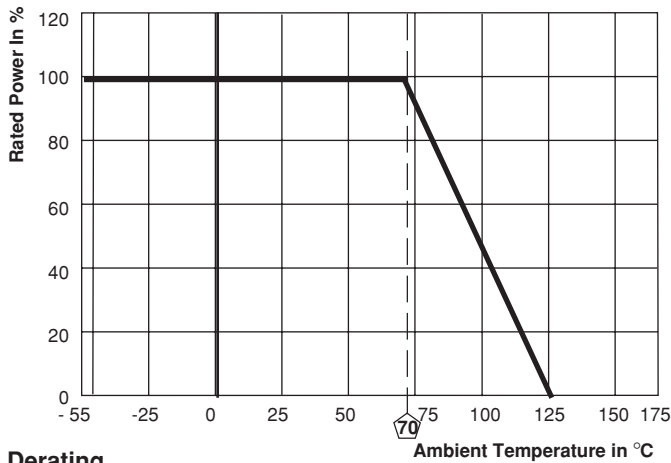
DIMENSIONS



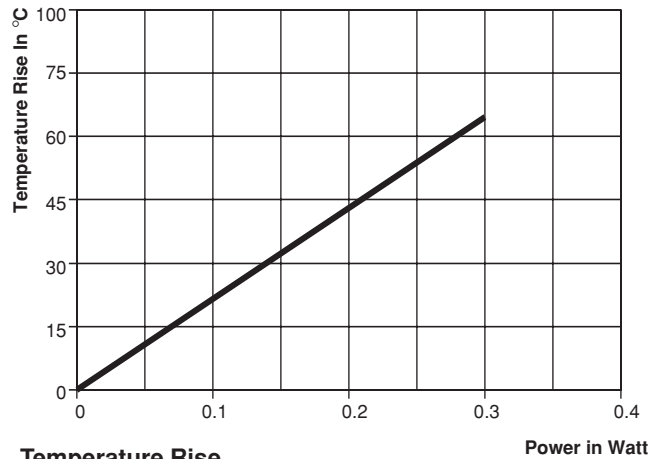
SIZE		DIMENSIONS in millimeters				
INCH	METRIC	L	W	H	T1	T2
1206	3216	$3.2^{+0.10}_{-0.20}$	1.6 ± 0.15	0.55 ± 0.05	0.45 ± 0.2	0.4 ± 0.2

SIZE		SOLDER PAD DIMENSIONS in millimeters*					
INCH	METRIC	a	b	l	a	b	l
1206	3216	0.9	1.7	2.0	1.1	1.7	2.3

*Pads: recommendations only



Derating



Temperature Rise

PERFORMANCE		
TEST	CONDITIONS OF TEST	REQUIREMENTS ¹⁾
Endurance Test at 70°C IEC 60115-1 4.25.1	1000 hours at 70°C 1.5 hours "ON", 0.5 hours "OFF"	$\leq \pm 1\%$
Endurance at UCT IEC 60115-1 4.25.3	1000 hours at 125 °C without load	$\leq \pm 1\%$
Thermal Shock IEC 60115-1 4.19, IEC 60068-2-14	Rapid change between upper and lower category temperature	$\leq \pm 0.2\%$
Damp Heat Steady State IEC 60115-1 4.24, IEC 60068-2-3	56 days at 40°C and 93% relative humidity	$\leq \pm 0.5\%$
Resistance to Soldering Heat IEC 60115-1 4.18, IEC 60068-2-20	10 seconds at 260°C solder bath temperature	$\leq \pm 0.2\%$

¹⁾Limits for change of resistance at test

APPLICABLE SPECIFICATIONS
<ul style="list-style-type: none"> • CECC40000 / 40400 • EN140400 / IEC 60115 – 1