

# FUSES

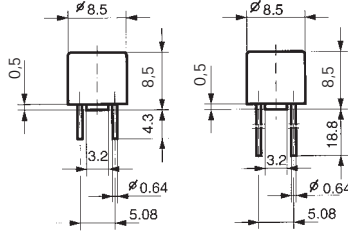
Non resettable fuses

MSU 250

Telecom

## Subminiature Fuses Type MSU 250

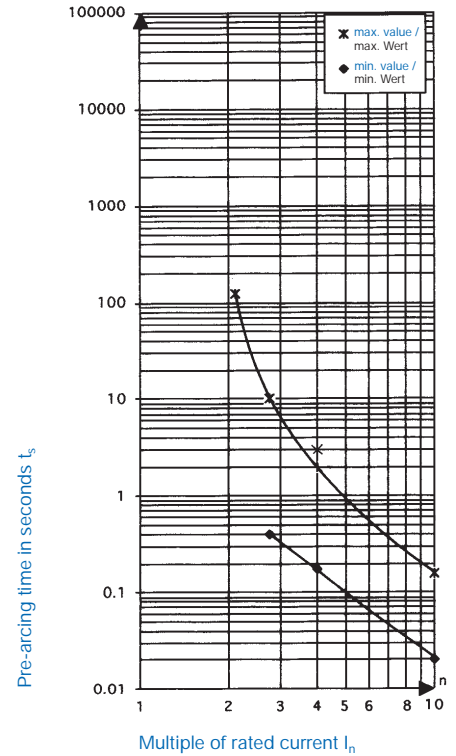
available in lead-free version **NEW**  
directly solderable into printed circuit boards or pluggable into fuseholder



### Pre-arcing time/current characteristic (at $T_a$ 23 °C)

Rated current $I_n$	$n \cdot I_n$		$2,1 \cdot I_n$		$2,75 \cdot I_n$		$4 \cdot I_n$		$10 \cdot I_n$	
	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
0,25–3,15 A	60 min	2 min	400 ms	10 s	150 ms	3 s	20 ms	150 ms	20 ms	150 ms

\* Non fusing current  $I_{nf}$



### Approvals

- SEV
- VDE
- SEMKO



### Standards

- IEC 60127-3/4; EN 60127-3/4
- UL 248-14
- CSA C22.2 No. 248.14
- ITU-T K.20/UL 1459/GR 1089

} with modifications based on IEC.../EN... /

The standards do not contain requirements for fig. 1–5. Therefore test-agencies do not carry out tests

**Breaking capacity** 35 A or  $10 \cdot I_n / 250$  V AC  
p.f. /  $\cos \varphi$  1

Order No	Terminals		Taped and reeled	Rated current $I_n$ Rated voltage $U_n$	Voltage drop		Sustained power dissipation		Pre-arcing $t_p$ at $10 \cdot I_n$ typ. A <sup>2</sup> s	ITU-T K.20			UL 1459	GR 1089
	short	long			at $I_n$ typ. mV	at $1,5 I_n$ typ. mW	Fig. 1 Lightning Surge 10x1 kV/ 10/700 $\mu$ s $I_{puls}$ max. A	Fig. 2 Power Induction AC 300 V / 0,5 A 5 x 200 ms A		Fig. 3 Power Contact AC 250 V / 15 min $I_{SC}$ max. A	Fig. 4 AC 600 V 40A / 1,5s 7A / 5s 2,2A / 30 min A	Fig. 5 1000 V 50 x 10/ 1000 $\mu$ s $I_{puls}$ max. A		
2040.0609	2040.0709	2040.0809	250 mA / 250 V	120	80	$6 \cdot 10^{-1}$	25,3	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0610	2040.0710	2040.0810	315 mA / 250 V	120	100	$8 \cdot 10^{-1}$	29,2	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0611	2040.0711	2040.0811	400 mA / 250 V	110	100	1,1	39,5	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0612	2040.0712	2040.0812	500 mA / 250 V	100	100	2,5	57	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0613	2040.0713	2040.0813	630 mA / 250 V	90	100	4	67 <sup>(1)</sup>	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0614	2040.0714	2040.0814	800 mA / 250 V	80	200	8	67 <sup>(1)</sup>	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0615	2040.0715	2040.0815	1 A / 250 V	70	200	12	67 <sup>(1)</sup>	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0616	2040.0716	2040.0816	1,25 A / 250 V	70	300	15	67 <sup>(1)</sup>	•	35	•	35	•	14 <sup>(5)</sup>	
2040.0617	2040.0717	2040.0817	1,6 A / 250 V	60	300	30	67 <sup>(1)</sup>	•	50	•	50	•	14 <sup>(5)</sup>	
2040.0618	2040.0718	2040.0818	2 A / 250 V	60	300	34	67 <sup>(1)</sup>	•	50	•	50	•	14 <sup>(5)</sup>	
2040.0619	2040.0719	2040.0819	2,5 A / 250 V	50	400	55	67 <sup>(1)</sup>	•	50	•	50	•	14 <sup>(5)</sup>	
2040.0620	2040.0720	2040.0820	3,15 A / 250 V	50	500	76	67 <sup>(1)</sup>	•	50	•	50	•	14 <sup>(5)</sup>	

Explanation for fig. 1–5 and index <sup>(1)</sup> / <sup>(5)</sup> see pages 210–213

<sup>(4)</sup> test carried out

Additional technical data and packaging see page 128



Suitable fuseholder see page 178, 179

**Technical data and packaging**

Types **MSU 125**  
**MSU 250**

**Additional technical data**

Ambient temperature max. $T_a$	MSU 125: - 25 °C to + 85 °C MSU 250: - 40 °C to + 85 °C
Permissible continuous operating current at 23 °C	MSU 125: $0,7 \cdot I_n$ Shift of the rated current at ambient air temperatures > 23 °C MSU 250: $1 \cdot I_n$ see diagramm on page 204
Resistance to vibration	Frequency 10 ÷ 2000 Hz, cross-over frequency 60 Hz < 60 Hz constant amplitude of 1,5 mm (except MSU 125 V: 0,75 mm) > 60 Hz constant acceleration of 100 m/s <sup>2</sup> (10 g) according to IEC 60068-2-6, test Fc
Resistance to shock	490 m/s <sup>2</sup> (50 g), 11 ms according to IEC 60068-2-27
Climate category	Types      MSU 125:    HPF } according to DIN 40040 MSU 250:    GPF }
Solderability	235 °C / 2 sec. according to IEC 60068-2-20, test Ta
Soldering heat resistance	260 °C / 10 sec. according to IEC 60068-2-20, test Tb
Materials /    Socket and cap Terminals	temperature resistant plastic, UL 94V-0  Copper tin-plated

**Packaging**

- Boxes of 100 pieces
- Taped and reeled 750 pieces  
MSU 125, 1000 pieces

**Tape and reel**

according to IEC 60286-2

