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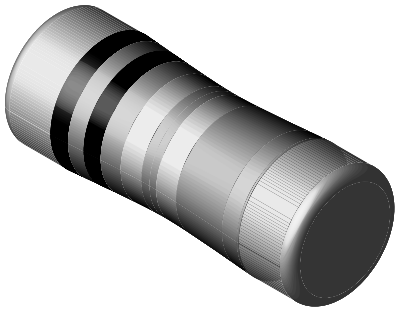
Carbon Film, Cylindrical, Fusible Resistors



FEATURES

- Fusible resistor for constant voltage designed for overload protection
- Specially spiralled to provide the fusible function
- Flame retardant coating
- Used in battery chargers, TV-sets, cordless phones, PC/CPU-cooler
- Pure tin termination on nickel barrier, plated on press fit steel caps
- Compatible with lead (Pb)-free and lead containing soldering processes
- Lead (Pb)-free and RoHS compliant

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING[1] P_{70} W	TEMPERATURE COEFFICIENT ppm/K	TOLERANCE %	RESISTANCE RANGE Ω	E-SERIES
LCM0207SI	0.25	+ 300/- 250	± 5	R22 - 1K0	24

Note

1. Permissible dissipation depends on the maximum temperature at the solder point, the component placement density and the substrate material.

- Marking: According to IEC 60062; see also datasheet “surface mount resistor marking” (document number: 20020)

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	LCM0207SI	
Rated Dissipation at 70 °C	W	0.25	
Minimum Overload to Fuse	W	> 1R0 < 1R0	4 5
Time to Fuse (max)	s	15	
Thermal Resistance[2]	K/W	≤ 220	
Voltage Coefficient	V^{-1}	≥ 10^7	
Category Temperature Range	°C	- 55 to + 125	
Failure Rate	10^{-9}/h	< 30	
Weight/1000 pcs	g	71	

Note

2. Based on measurements on test board acc. to EN 140400.

PART NUMBER AND PRODUCT DESCRIPTION[3]

PART NUMBER[4]: LCM02070B01008JBP

L	C	M	0	2	0	7	B	0	1	0	0	8	J	B	P		

MODEL/SIZE	SPECIAL CHARACTER	TC	VALUE	TOLERANCE	PACKING[5]	SPECIAL
LCM0207	**B** = SI Fusible	**0** = neutral see data sheet for TC value	3 digit value 1 digit multiplier **Multiplier** **7** = $*10^{-3}$ **0** = $*10^{0}$ **8** = $*10^{-2}$ **1** = $*10^{1}$ **9** = $*10^{-1}$	**J** = ± 5 %	**BP** **BS**	up to 2 digits **00** = standard

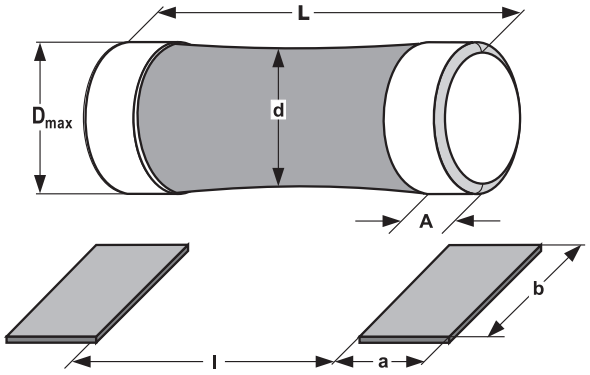
PRODUCT DESCRIPTION: LCM0207SI 1R0 5% BP

LCM0207SI	1R0	5 %	BP
MODEL	RESISTANCE VALUE	TOLERANCE	PACKING[5]
LCM0207SI	**1R0** = 1 Ω **R22** = 0.22 Ω	± 5 %	BP BS

Note

3. Products can be ordered using either the PRODUCT DESCRIPTION or the PART NUMBER.
4. The PART NUMBER is shown to facilitate the introduction of a unified part numbering system. Currently, this PART NUMBER is applicable in the Americas only.
5. Please refer to table PACKING, see below.

Dimensions



MODEL	DIMENSIONS [in millimeters]				
	D_{max}	d*	L	A_{max}	A_{min}
LCM0207SI	2.2	D - 0.4	5.8- 0.3	1.2	0.6

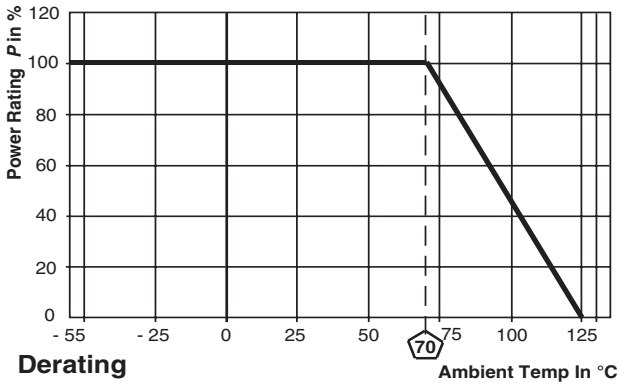
* d measured in the middle of the resistor

MODEL	SOLDER PAD DIMENSIONS [in millimeters]					
	REFLOW SOLDERING			WAVE SOLDERING		
	a	b	l	a	b	l
LCM0207SI	1.8	2.5	2.9	2.4	2.5	2.8

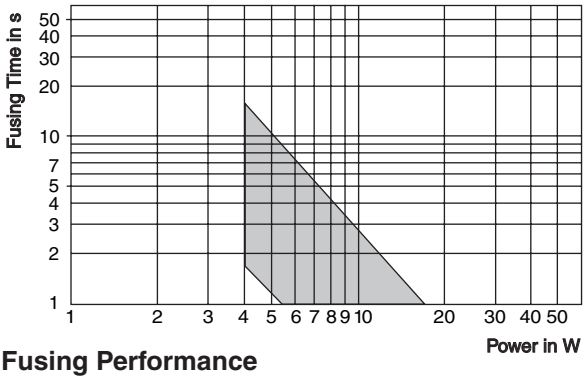
PACKING

MODEL	BLISTER TAPE ON REEL ACC. IEC 60286-3		
	DIAMETER	PIECES/REEL	CODE
LCM0207SI	180 mm/7"	1500	BP
	330 mm/13"	7500	BS

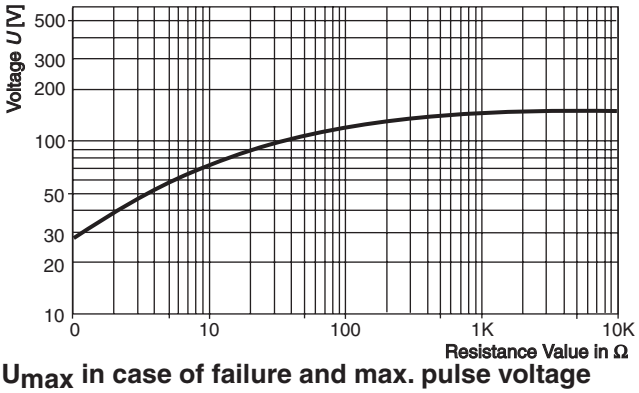
Further information about PACKING see also datasheet “surface mount resistor packing” (document number: 20014).



Derating



Fusing Performance



U_{max} in case of failure and max. pulse voltage

PERFORMANCE

TEST	CONDITIONS OF TEST	REQUIREMENTS
Endurance Test at 70 °C IEC 60115-1, 4.25.1	1000 hours at 70 °C, 1.5 hours "ON", 0.5 hours "OFF"	≤ 2 %
Endurance at UCT IEC 60115-1, 4.25.3	1000 hours at 125 °C without load	≤ 2 %
Thermal Shock IEC 60115-1, 4.19 and IEC 60068-2-14	Rapid change between upper and lower category temperature, 5 cycles	≤ 0.5 %
Damp Heat Steady State IEC 60115-1, 4.24 and IEC 60068-2-78	56 days at 40 °C and 93 % relative humidity	≤ 2 %
Resistance to Soldering Heat IEC 60115-1, 4.18 and IEC 60068-2-58	10 seconds at 260 °C solder bath temperature	≤ 0.25 %

SOLDERING INFORMATION

- For reflow soldering only
- Board has to be thoroughly cleaned after soldering. All flux materials must be completely removed

APPLICABLE SPECIFICATION

- EN 60115-1

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