

## Carbon Film Resistors, Fusible Type



### FEATURES

- Fusible resistor for constant voltage designed for over load protection
- Special construction opens the resistor at a specified overload
- Non inflammable coating
- Defined switch-off behaviour

### STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE	POWER RATING $P_{70^{\circ}\text{C}}$ W	TOLERANCE %	RESISTANCE RANGE $\Omega$
SKS2	0207	0.30	5, 10	1R0 - 5K1
SKS3	0309	0.35	5, 10	1R0 - 5K1
SKS4	0414	0.50	5, 10	1R0 - 5K1
SKS5	0617	1.0	5, 10	1R0 - 5K1
SKS8	0922	1.3	5, 10	1R0 - 5K1

- $R_i \geq 6\Omega$  for  $R_N < 10R$   
 $R_i \geq 1\Omega$  for  $R_N \geq 10R$

- Coating: red brown

- Marking: 5<sup>th</sup> band yellow

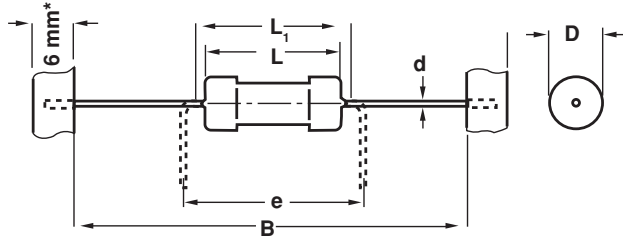
### TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	SKS2	SKS3	SKS4	SKS5	SKS8
Rated Dissipation at 70°C	W	0.30	0.35	0.50	1.0	1.3
Overload to Fuse	W	3.5	5.0	7.0	14.0	21.0
Time to Fuse (max)	sec.	40	40	70	80	100
Max. Permissible Voltage	V	See Diagram				
Voltage Coefficient	1 / V	$< 10^{-7}$	$< 10^{-7}$	$< 10^{-7}$	$< 10^{-7}$	$< 10^{-7}$
Current Noise	$\mu\text{V} / \text{V}$	$< 0.1$	$< 0.1$	$< 0.1$	$< 0.1$	$< 0.1$
Thermal Resistance (max)	K/W	220	180	130	80	60
Thermal Time Constant	sec.	8	11	20	35	70
Category Temperature Range	°C	- 55 / +125				
Failure Rate	$10^{-9}/\text{h}$	$< 30$				
Weight	g	0.2	0.36	0.7	1.5	3.3

### ORDERING INFORMATION

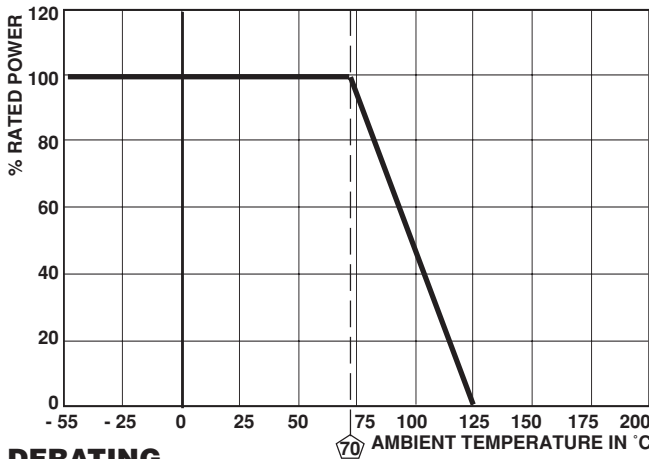
SKS2 MODEL	100R RESISTANCE VALUE $\Omega$	5% TOLERANCE	A5 PACKAGING
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**DIMENSIONS**



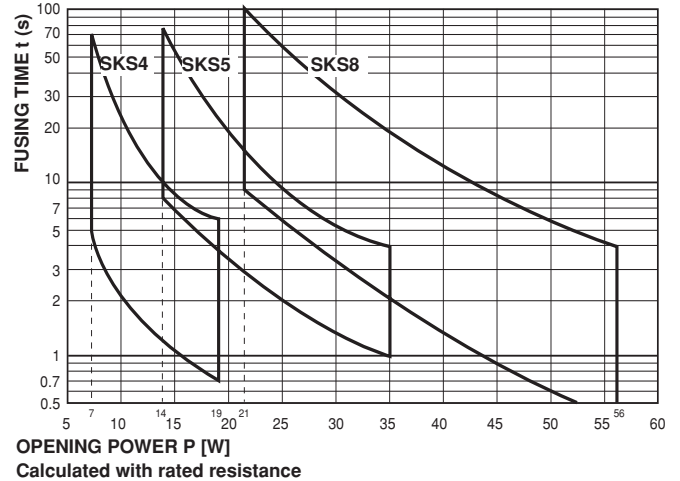
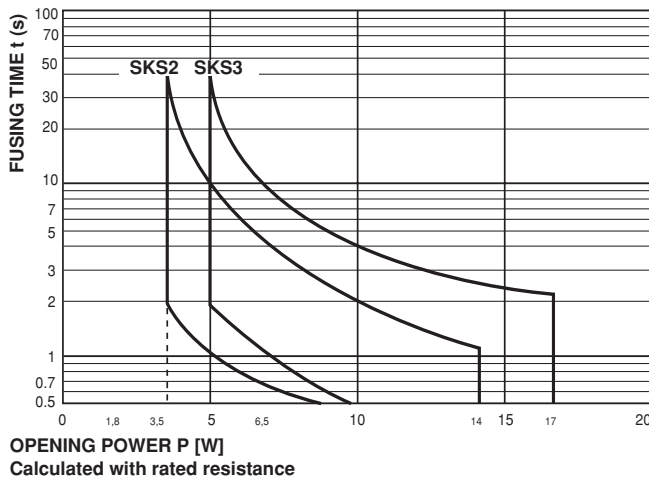
- Taping in acc. with IEC60286-1
- D and L measured in acc. with IEC60294
- d according to IEC60301
- 1) Also available in 26mm tape spacing
- \* 9mm for SKS5, SKS8

MODEL	DIMENSIONS in millimeters					
	D	L	L1max	B	d	e
SKS2	2.5 - 0.5	6.0 - 0.5	7.5	53 ± 1 <sup>1)</sup>	0.6	7.5
SKS3	3.2 - 0.5	8.5 - 1.0	10.0	53 ± 1	0.6	10
SKS4	4.1 - 0.5	12.0 - 1.5	15.0	73 ± 1	0.8	15
SKS5	6.0 - 0.5	16.5 - 1.5	17.5	77 ± 1	0.8	17.5
SKS8	9.0 - 0.5	20.0 - 1.5	22.5	77 ± 1	0.8	22.5

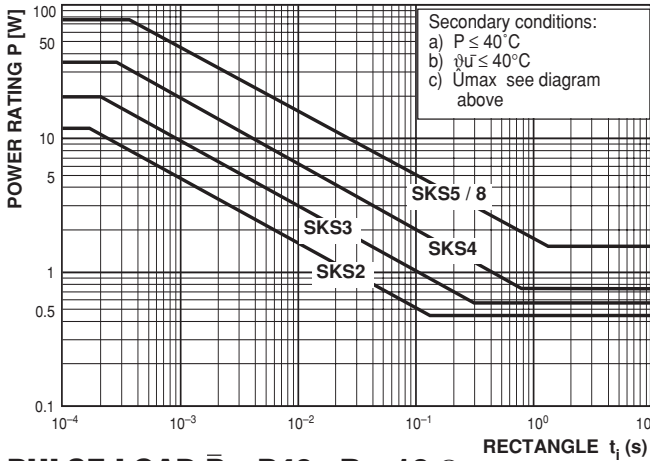
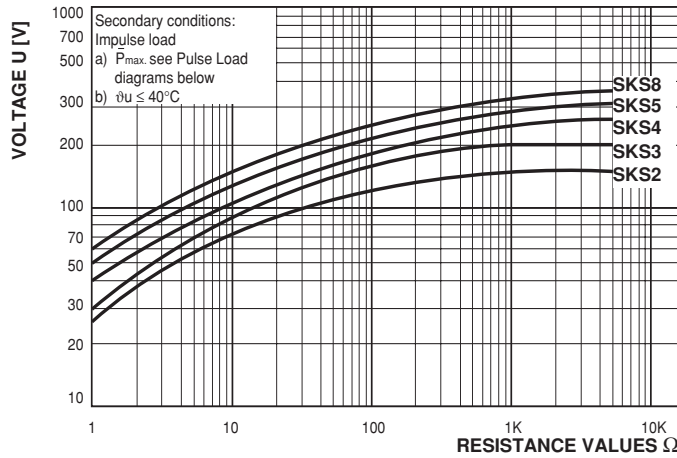


**DERATING**

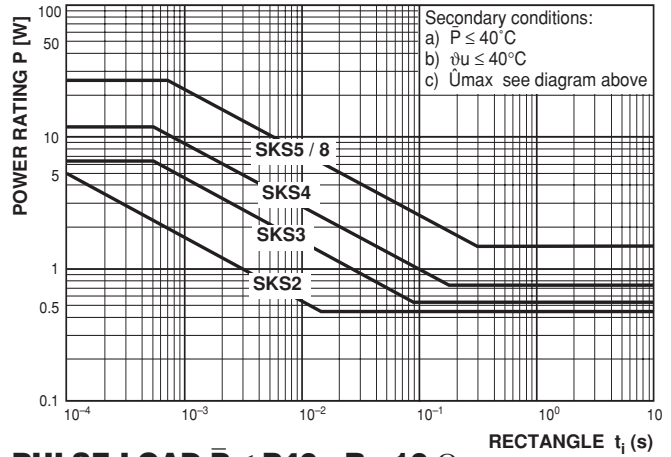
**FUSING TIME (AT U = CONSTANT)**



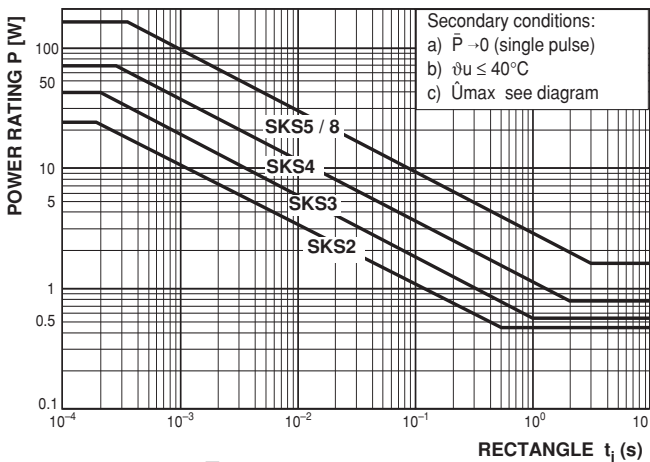
APPROXIMATE VALUES FOR  $\hat{U}$  MAX IN CASE OF FAILURE AND MAX PULSE VOLTAGE



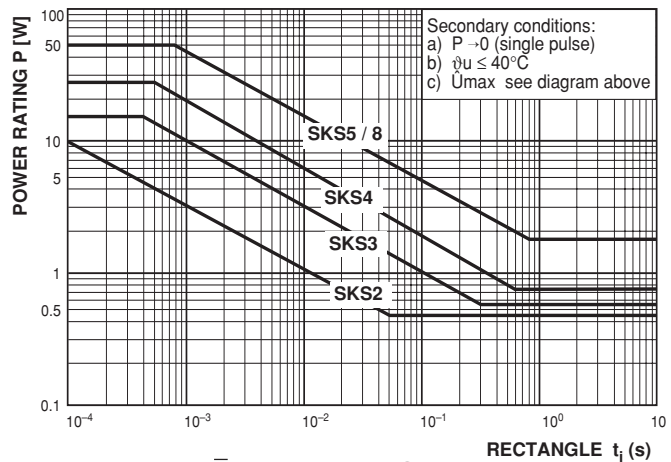
PULSE LOAD  $\bar{P} \leq P40$   $R \geq 10 \Omega$



PULSE LOAD  $\bar{P} \leq P40$   $R < 10 \Omega$



PULSE LOAD  $\bar{P} \rightarrow 0$   $R \geq 10 \Omega$



PULSE LOAD  $\bar{P} \rightarrow 0$   $R < 10 \Omega$



<b>PERFORMANCE</b>		
<b>TEST</b>	<b>CONDITIONS</b>	<b>RESULTS</b>
Voltage Coefficient	1 / V	$< 10^{-7}$
Ohmic Value after Fusing	$\Omega$	$> 10 \times R_N$
Temperature Coefficient	$10^{-6}/K$	$R < 10\Omega: + 200; R \geq 10\Omega:- 300.. - 500$
Non-Linearity	dB	SKS1 = 90; SKS2 to 8 =100
Damp Heat steady state	56 days, 40°C, 90-95% humidity	$\leq 1\%$