

Carbon Film Resistors, Fusible Type



FEATURES

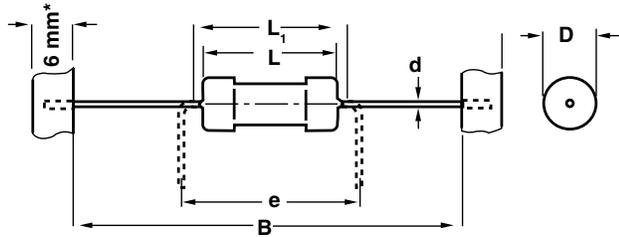
- Fusible resistor for constant voltage designed for over load protection
- Special construction opens the resistor at a specified overload
- Non inflammable coating
- Lead (Pb)-free solder contacts
- Pure tin plating provides compatibility with lead (Pb)-free and lead containing soldering processes
- Compatible with "Restriction of the use of Hazardous Substances" (RoHS) directive 2002/95/EC (issue 2004)
- Defined switch-off behaviour



STANDARD ELECTRICAL SPECIFICATIONS				
MODEL	SIZE	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	TOLERANCE %	RESISTANCE RANGE Ω
SKS2	0207	0.30	$\pm 5, \pm 10$	1R0 - 5K1
SKS4	0414	0.50	$\pm 5, \pm 10$	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: 5th band yellow

TECHNICAL SPECIFICATIONS			
PARAMETER	UNIT	SKS2	SKS4
Rated Dissipation at 70 °C	W	0.30	0.50
Overload to Fuse	W	3.5	7.0
Time to Fuse (max)	s	40	70
Max. Permissible Voltage	V	See Diagram	
Voltage Coefficient	1/V	$< 10^{-7}$	$< 10^{-7}$
Current Noise	$\mu\text{V/V}$	< 0.1	< 0.1
Thermal Resistance (max)	K/W	220	130
Thermal Time Constant	s	8	20
Category Temperature Range	$^\circ\text{C}$	- 55 to + 125	
Failure Rate	$10^{-9}/\text{h}$	< 30	
Weight	g	0.2	0.7

DIMENSIONS


MODEL	DIMENSIONS [in millimeters]					
	D	L	L _{1max}	B	d	e
SKS2	2.5 - 0.5	6.0 - 0.5	7.5	53 ± 1 ¹⁾	0.6	7.5
SKS4	4.1 - 0.5	12.0 - 1.5	15.0	73 ± 1	0.8	15

- Taping in acc. with IEC60286-1
 - D and L measured in acc. with IEC60294
 - d according to IEC60301
1. Also available in 26 mm tape spacing

PART NUMBER AND PRODUCT DESCRIPTION
PART NUMBER: SKS2207001000JD500

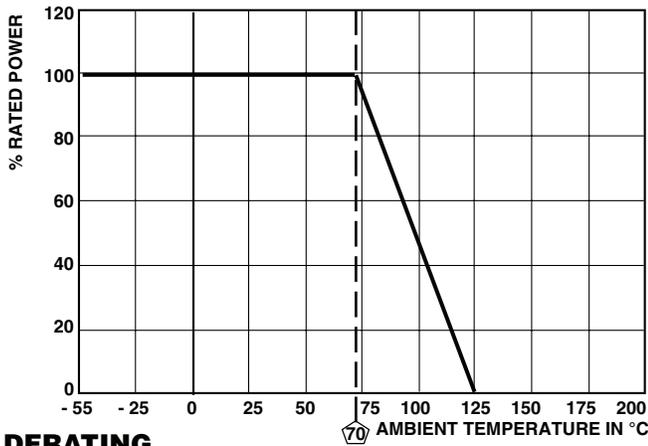
S	K	S	2	2	0	7	0	0	1	0	0	0	J	D	5	0	0
MODEL/SIZE SKS2207 SKS4414	SPECIAL CHARACTER 0 = neutral		TCR 0 = neutral See diagram		VALUE 3 digit value 1 digit multiplier			TOLERANCE J = ± 5 % K = ± 10 %		PACKAGING D5 = R5 (G53) DE = RE 41 = A1 (G73) 22 = A2 (G53)			SPECIAL up to 2 digits 00 = standard				
					MULTIPLIER 7 = *10 ⁻³ 8 = *10 ⁻² 9 = *10 ⁻¹ 0 = *10 ⁰ 1 = *10 ¹												

PRODUCT DESCRIPTION: SKS2 100R 5 % R5

SKS2	100R	5 %	R5
MODEL	RESISTANCE VALUE	TOLERANCE	PACKAGING ¹⁾
SKS2 SKS4	1K0 = 1 kΩ 10R = 10 Ω	± 5 % ± 10 %	R5 (G53) RE A1 (G73) A2 (G53)

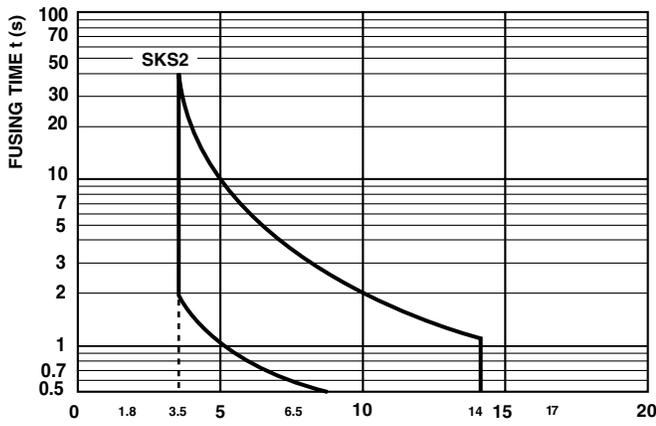
¹⁾ Please refer to table PACKAGING, page 3.

Note: The PART NUMBER shown above is to facilitate the unified part numbering system for ordering products.

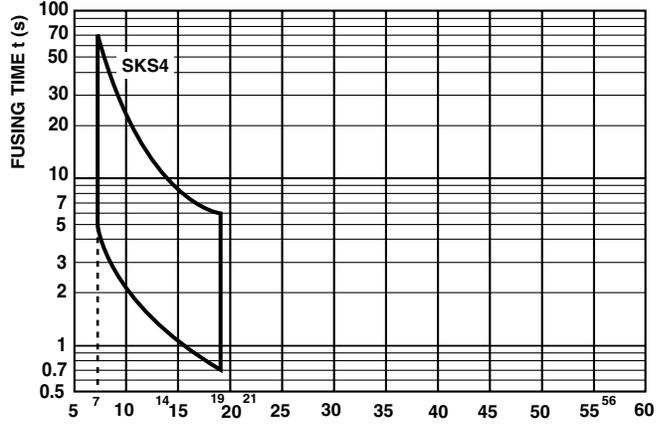


DERATING

FUSING TIME (AT U = CONSTANT)

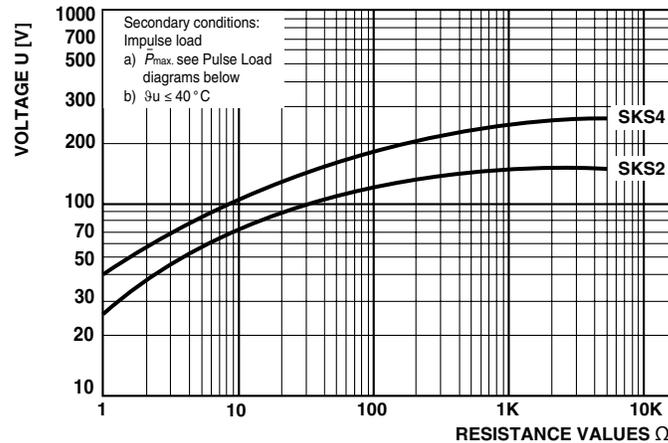


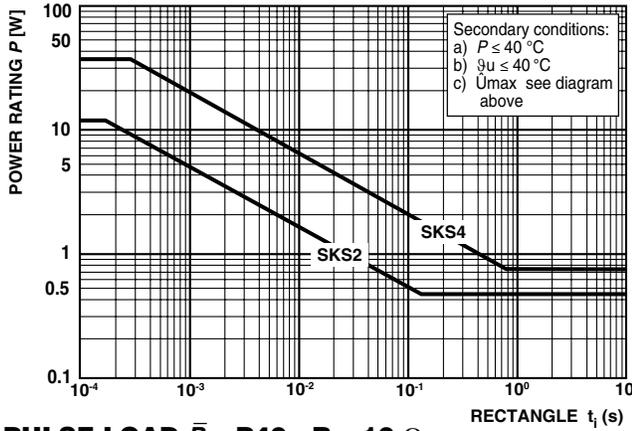
OPENING POWER P [W]
Calculated with rated resistance



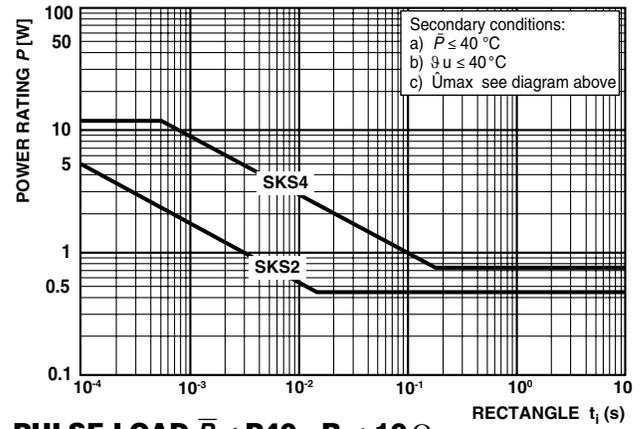
OPENING POWER P [W]
Calculated with rated resistance

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

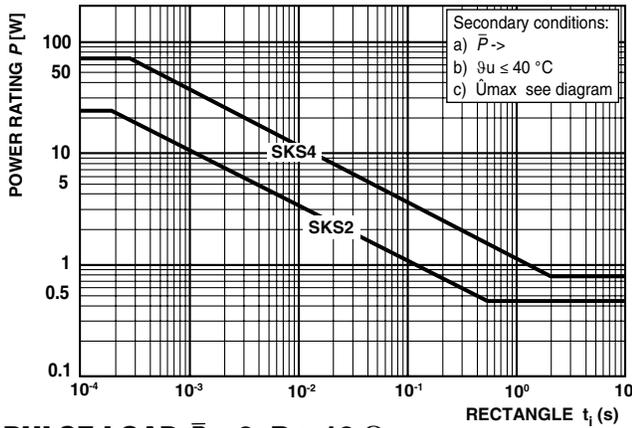




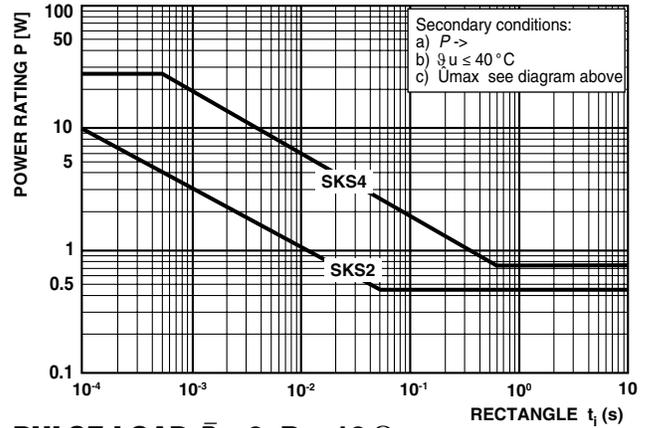
PULSE LOAD $\bar{P} \leq P40$ $R \geq 10 \Omega$



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



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



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

PACKAGING

MODEL	REEL		BOX	
	PIECES/REEL	CODE	PIECES/BOX	CODE
SKS2	5000	R5	2000	A2
SKS4	2500	RE	1000	A1

PERFORMANCE

TEST	CONDITIONS	RESULTS
Voltage Coefficient	1/V	$< 10^{-7}$
Ohmic Value after Fusing	Ω	$> 10 \times R_N$
Temperature Coefficient	$10^{-6}/K$	$R < 10 \Omega: +200; R \geq 10 \Omega: -300.. -500$
Non-Linearity	dB	SKS2, SKS4 = 100
Damp Heat steady state	56 days, 40 °C, (90 - 95) % humidity	$\leq 1 \%$



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