

SMD

Precision Fusible Safety Wirewound Resistors

Ceramic rod, Flame retardant coating

UL1412 Recognized (UL 1412, file E 330640)



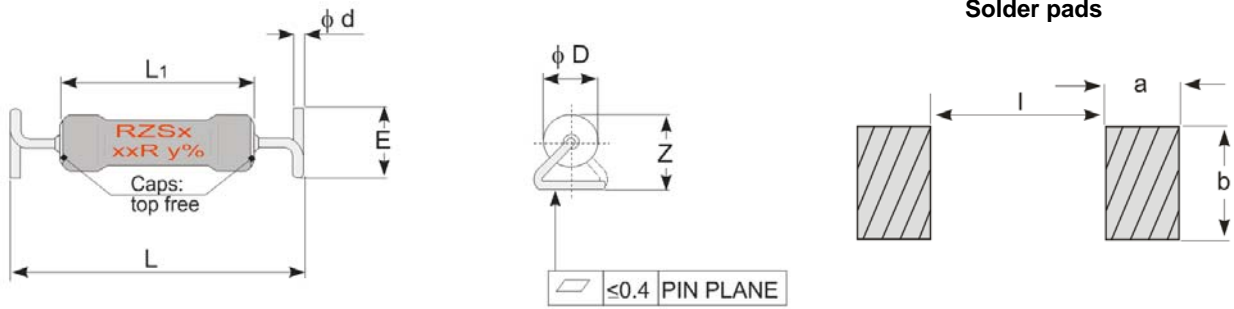
ELECTRICAL SPECIFICATIONS

Type		RZS1	RZS2	RZS3	RZS4	RZS6
Nominal Power rating	P ₄₀	1,1	2,0	2,5	3,0	4,0
	P ₇₀	1,0	1,8	2,3	2,7	3,6
<u>Resistance range</u>	[Ω]	See next page (higher values upon request)				
<u>Series</u>		E24				
<u>Tolerances</u>	± [%]	J (5)				
<u>Temperature coefficient</u>	± [10 ⁻⁶ *K ⁻¹]	120 ±50				
<u>Temperature range</u>	[°C]	-55 ... + 350				
<u>Thermal resistance</u>	[KW ⁻¹]	280	155	122	104	78
<u>Dielectric withstanding voltage</u> <i>IEC115-1 clause 4.7 (1[<i>min</i>])</i>	[V]	500				
<u>Max. working voltage</u>		$\sqrt{P_{70} * R}$				

PERFORMANCE DATA

<u>Derating linear</u>	[°C]	70...350 (0W)				
<u>Climatic category</u>		55/350/56				
<u>Failure Rate</u> <i>(Total, ϑ_o, max, 60[%] cont. lev.)</i>	[10 ⁻⁹ h ⁻¹]	appr. 10 depends on value				
<u>Endurance</u> <i>IEC60115-1 clause 4.25 (P₇₀, @ 70[°C], 1000[h])</i>	± [%]	5,0				
<u>Damp heat, steady state</u> <i>IEC115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])</i>	± [%]	5,0				
<u>Climatic sequence</u> <i>IEC115-1 clause 4.23</i>	± [%]	2,0				
<u>Surge test</u> <i>IEC61000-4-5</i>	± [%]	Max. 2,0				
<u>Terminal strength</u>	± [%]	0,2				
<u>Terminal Tensile Strength</u>	[N]	40		50		
<u>Resistance to soldering heat</u> <i>IEC115-1 clause 4.12 (260[°C], 10[s])</i>	± [%]	0,5				
<u>Solderability</u> <i>IEC 60068-2-20 (245±3[°C] 3±0,3[s])</i>		Solder bath method (min. 95[%] coverage)				
<u>Marking</u> <i>IEC60062</i>		Printed in clear				

DIMENSIONS [mm]



Type	Size	L	L ₁ max.	∅ D max	∅ d ^{±0,05}	E	Z max	I	a	b
RZS1	5315	13,4 ±0,5	9,0	3,0	0,65	4,5±0,5	7,0	10	10	10
RZS2	5315		9,7	4,0	0,80					
RZS3	6720	17,0 ±1	14,5	4,5	0,65	5,0±0,5	7,5	14	10	10
RZS4	6720		12,6	6,0	0,80					
RZS6	8424		20,9 ±1	17,0	6,0		0,80			

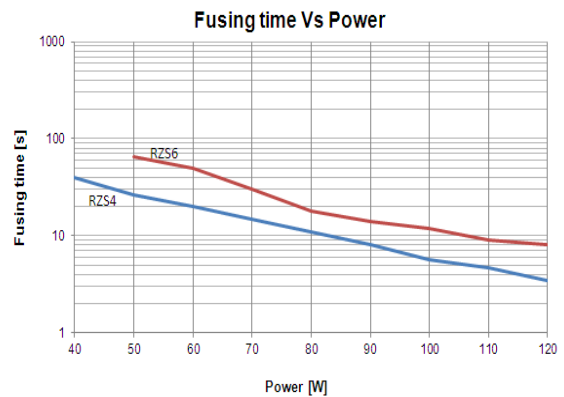
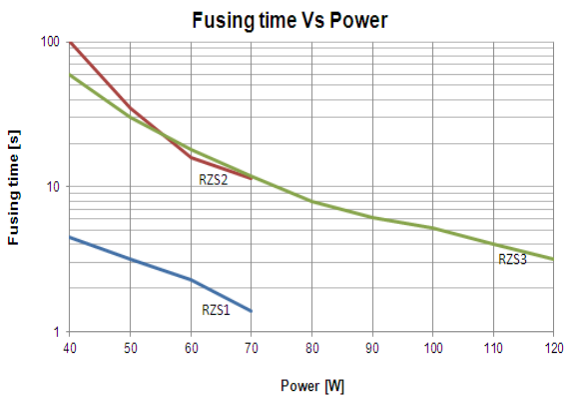
FUSING PERFORMANCE

Resistance range				
RZS1	RZS2	RZS3 ⁽¹⁾	RZS4 ⁽¹⁾	RZS6 ⁽¹⁾
*1R ... 100R	*1R ... 240R	*1R ... 330R	*1R ... 330R	*1R ... 330R

Note: The special construction off resistance values >10R results in an immediate interruption (<1s, 200[ms] typical), when mains voltage (120/230[V]_{RMS}) is applied. No flames, no explosion. After fusing, the resistance value is 100K.

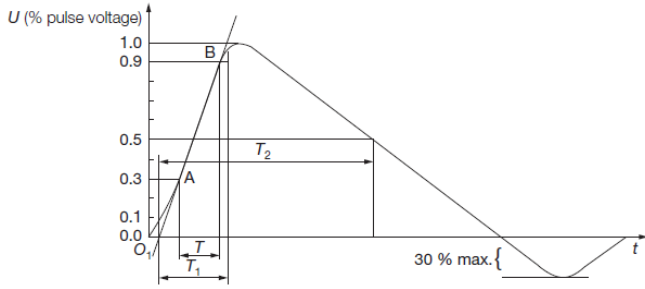
* The interruption mechanism for resistance values <10R and resistance values >max. range is not clearly defined, also for other voltage. Need to be tested in the final application

⁽¹⁾ For these types, values below 10R are not UL approved.

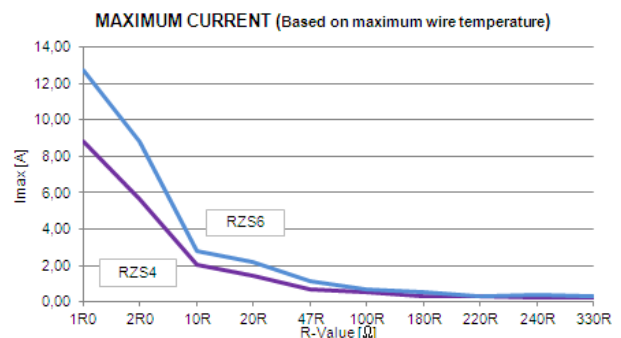
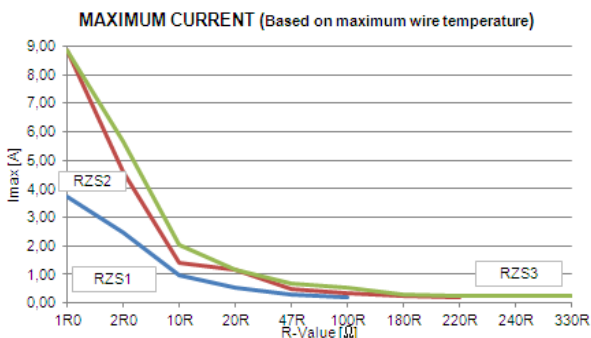
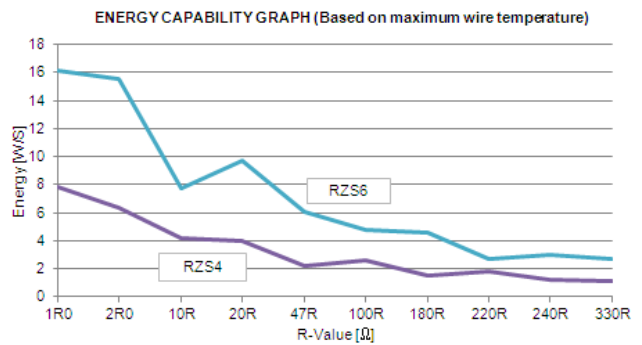
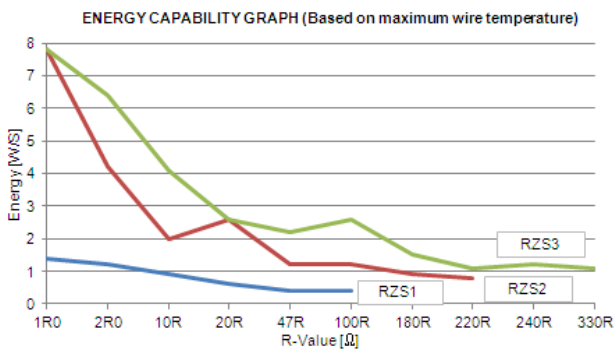
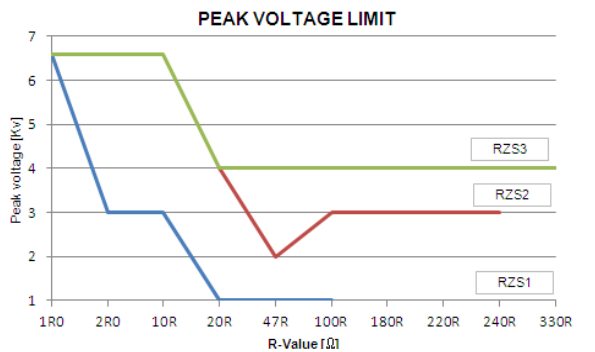
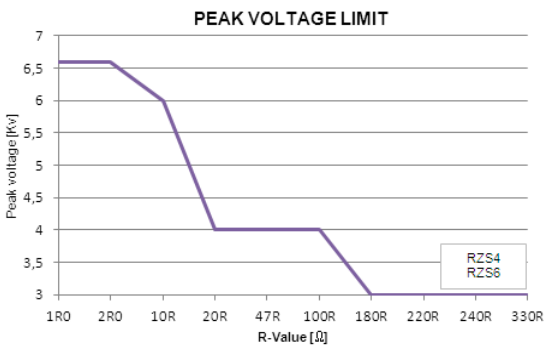
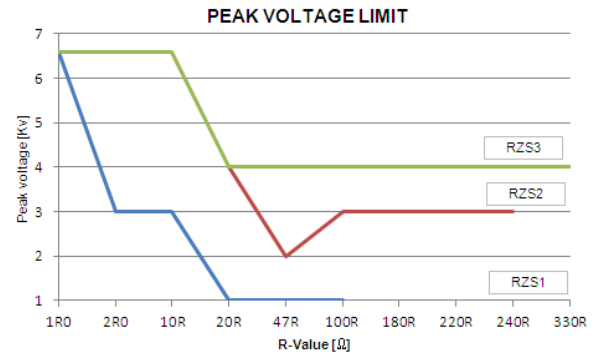
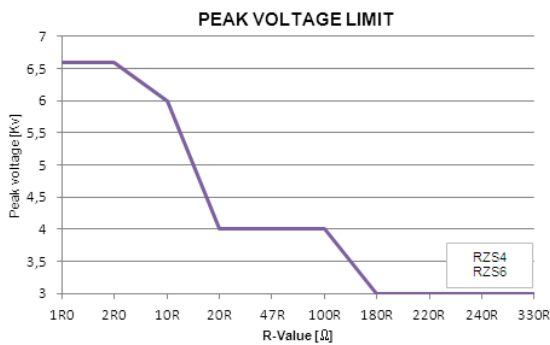


PULSE PERFORMANCE

Beside fusible, this resistor also acts as in-rush current limiting for normal operation.

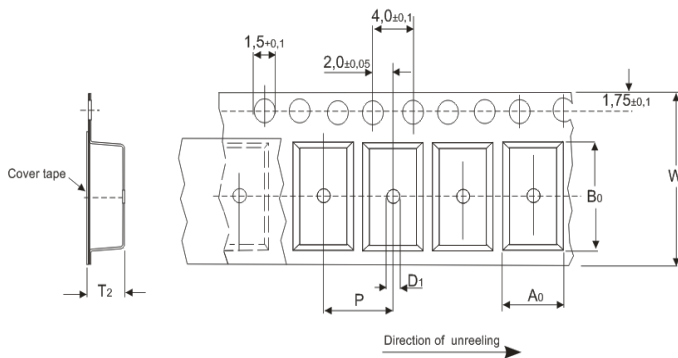


NOTE: The voltage shown in the below table, is the net voltage across the resistor. The generator open voltage will be higher due to the generator's internal impedance (12[Ω]).
Pulse shape – 10 pulses @ 10 [s] interval

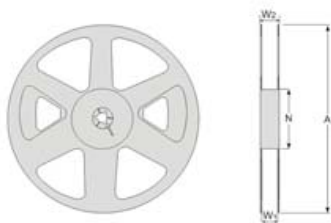


PACKAGING (dimensions [mm])

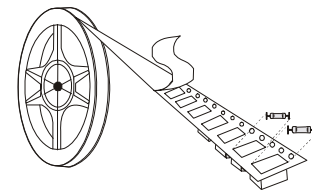
The standard packaging for RZS type is blister tape, as showed below



Size	5315	6720	8424
A0	5,0	5,7	6,0
B0	13,7	16,7	21,4
W	24	24	32
D1	2,0	2,0	2,0
P	8	8	12
T2	7,2	7,6	8,1



Size	W ₁	W ₂	N	A
5315	25,4	29,5	90	330
6720				
8424	33,4	37,4	100	380



Size	Packaging	Pieces
5315	13 [inch] Blister tape	1000
6720		
8424	15 [inch] Blister tape	

ORDERING EXAMPLE

RZS4	6720	J	K	-	13	220R
Type	Size	Tolerance	Blister tape reel	TC	Reel diameter	R-Value