

Precision Fusible safety Wirewound Resistors
Axial, Ceramic core,
Flame retardant coating, UL1412 Recognized
 (file E 330640)

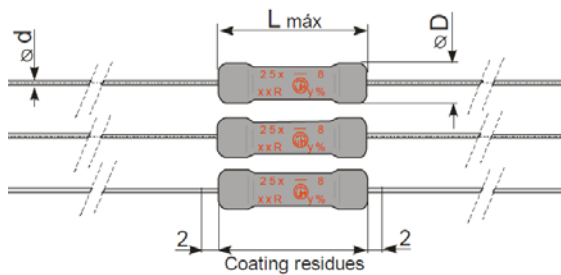
**ELECTRICAL SPECIFICATIONS**

Type		CRF 251-8	CRF 252-8	CRF 253-8	CRF 254-8	CRF 256-8	CRF 257-8
<u>Nominal Power rating</u>	P ₄₀	1,1	2,0	2,5	3,0	4,0	5,0
	P ₇₀	1,0	1,8	2,3	2,7	3,6	4,5
<u>Resistance range</u>	Min	1R0	1R0	10R	10R	10R	1R0
	Max	100R	240R	330R	330R	330R	330R
<u>Series</u>		E24					
<u>Tolerances</u>	± [%]	1, 2, 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	62
<u>Dielectric withstanding voltage</u> <i>IEC115-1 clause 4.7 (1[min])</i>	[V]	max 500					
<u>Max. working voltage</u>	[V] _{RMS}	$\sqrt{P_{70} * R}$					

PERFORMANCE DATA

<u>Derating linear</u>	[°C]	70...350 (0W)					
<u>Climatic category</u>		55/350/56					
<u>Failure Rate</u> <i>(Total, ρ_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>	± [%]	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					

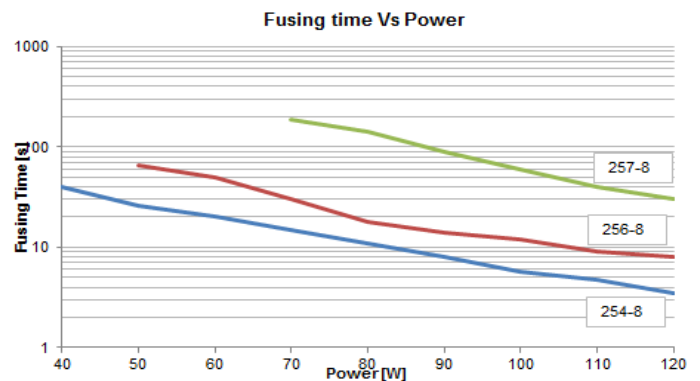
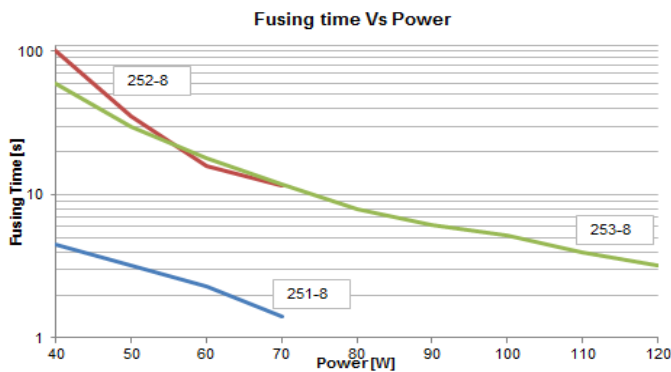
DIMENSIONS [mm]



Type	L max	Ø D max	Ø d
CRF251-8	9,0	3,0	0,65
CRF252-8	9,7	4,0	0,80
CRF253-8	14,5	4,5	0,65
CRF254-8	12,6	6,0	0,80
CRF256-8	17,0	6,0	0,80
CRF257-8	18,0	8,5	0,80

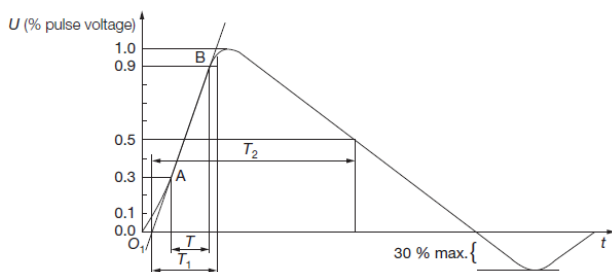
FUSING PERFORMANCE

UL – Voltage approved	Resistance range					
	CRF251-8	CRF252-8	CRF253-8	CRF254-8	CRF256-8	CRF257-8
230 [V]			10R ... 330R	10R ... 330R	10R ... 330R	
375 [V]	1R ... 100R	1R ... 240R				1R ... 330R
120 [V]			10R ... 90R	10R ... 90R	10R ... 90R	
170 [V]	1R ... 100R	1R ... 240R				1R ... 330R

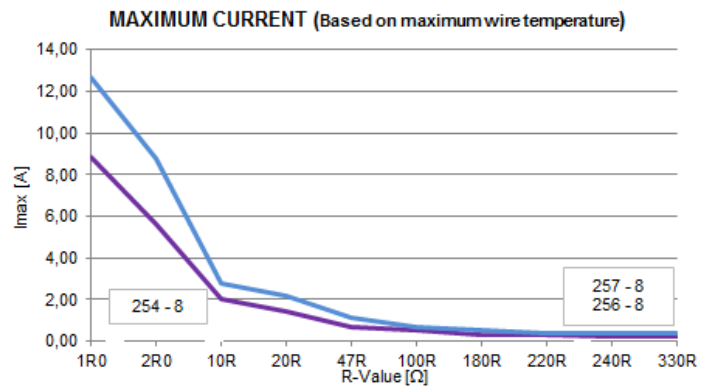
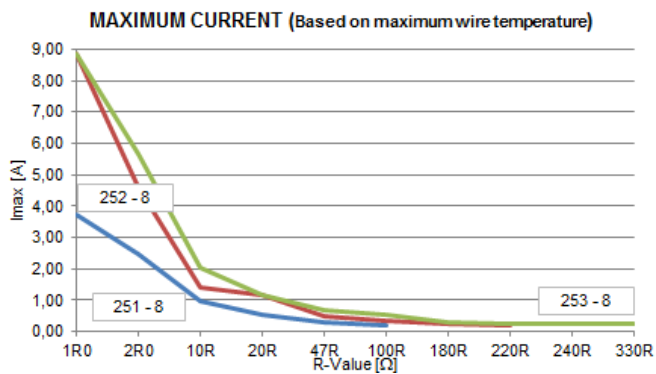
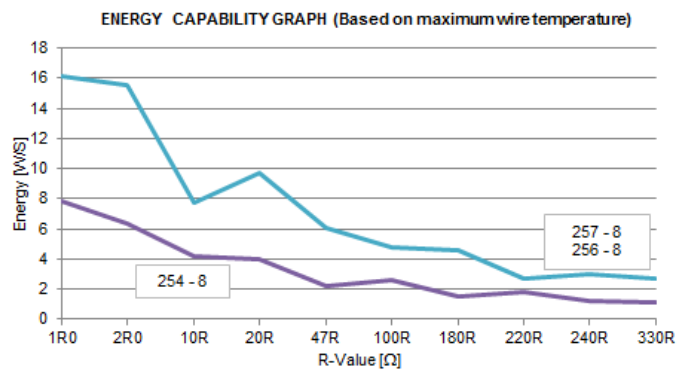
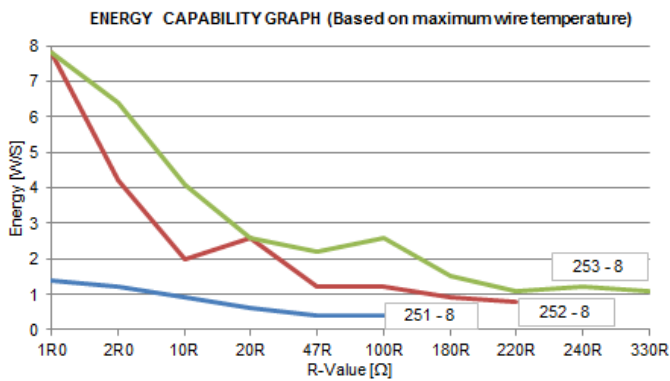
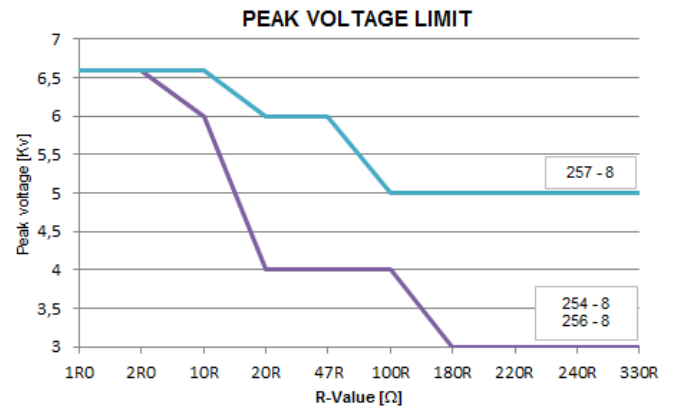
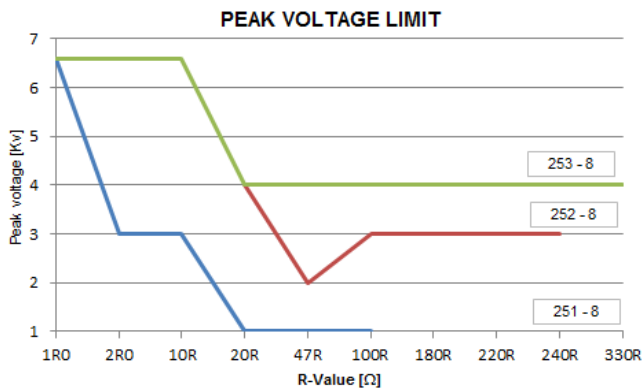


PULSE PERFORMANCE

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

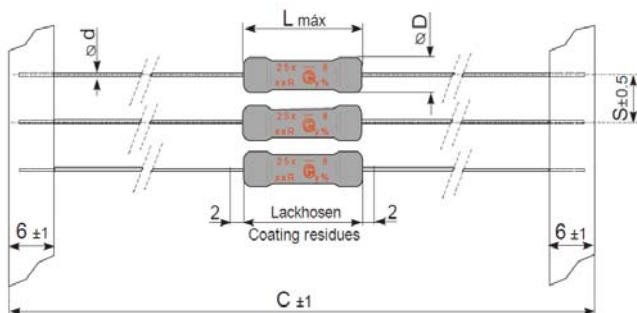


NOTE: The voltage shown in the below table, is the net voltage across the resistor. The generator open voltage will be higher due to the generator's internal impedance (12[Ω]).
Pulse shape – 10 pulses @ 10 [s] interval



PACKAGING

The standard packaging for CRF8 UL in axial type is taped, dimensions below.



Type	Packaging	Pieces	Pack. Code	C	s
CRF251-8	Taped / Ammo pack	1000	T	65	5
CRF252-8		1000		65	5
CRF253-8		1000		85	10
CRF254-8		1000		85	10
CRF256-8		1000		85	10
CRF257-8		500		85	10

ALTERNATIVE LEAD CONFIGURATIONS

This type CRF8 UL, is also available in a different pre-forming, as shown below, other's upon request.

SMD VERSION

Z – form



Please check the details here <http://www.vitrohm.com>

THROUGH HOLE VERSION

Radial	Radial Kink	Axial	Axial Kink

*For horizontal and vertical pre-forming please consult your local sales contact.

ORDERING EXAMPLE

CRF254-8	5	T	150R
<i>Type</i>	<i>Tolerance</i>	<i>Pack-Code</i>	<i>R-Value</i>