RoHS compliant

Power Metaloxide film resistor

Flame retardant

Specifications

Type		PO595-0	PO593-0	PO590-0	PO591-0
Style		0207	0414	0617	0922
Nominal Power rating P_{70}	W	1	2	3	4
Resistance range	Ω	See next page			
E-series		See next page			
Tolerances	%	See next page			
Temperature coefficient	$10^{-6} * K^{-1}$	See next page			
Max. cont. working voltage	V_{RMS}	500		750	
Voltage coefficient	10^{-6} V^{-1}	<3			
Insulation voltage (1min.)	V_{RMS}	500			
Insulation resistance	Ω	$>10^3$M			
Derating, Linear, 70….	℃	200	235	250	250
Climatic category		55 / 200 / 56			
Temperature range	℃	- 55 … 200	- 55 … 235	- 55 … 250	- 55 … 250
Thermal resistance	KW^{-1}	125	80	60	45
Failure rate (Total ϑ_0 max, 60% conf. lev.)	$10^{-9} * h^{-1}$	<10			
Endurance (P_{70}, @ 70℃, 1000h intem.)	[ΔR/R] %	± 2,0	± 2,0	± 1,5	± 1,5
Damp heat, steady state (40℃, 93% r.h., 56d)	[ΔR/R] %	± 2,0	± 2,0	± 1,5	± 1,5
Climatic sequence	[ΔR/R] %	± 1,0			
Terminal Strength	[ΔR/R] %	± 0,3			
Terminal tensile Strength	N	40			
Resistance to soldering heat (260ºC, 10s.)	[ΔR/R] %	± 0,25			
Solderability	S	2,5 Flowtime, solderglobule test, IEC 60068-2-20-T			
Current noise (DIN/IEC 195)	dB	R < 15K: -15 R>: 15 +10 /decade			
Nonlinearity (DIN/IEC 440)	dB	R < 15K: 110 R> 15 K: 110 -20 /decade			
Marking		595 / 593: DIN-IEC-colour code, 4/5/6 bands 590 / 591: printed in clear			

Revision 201001

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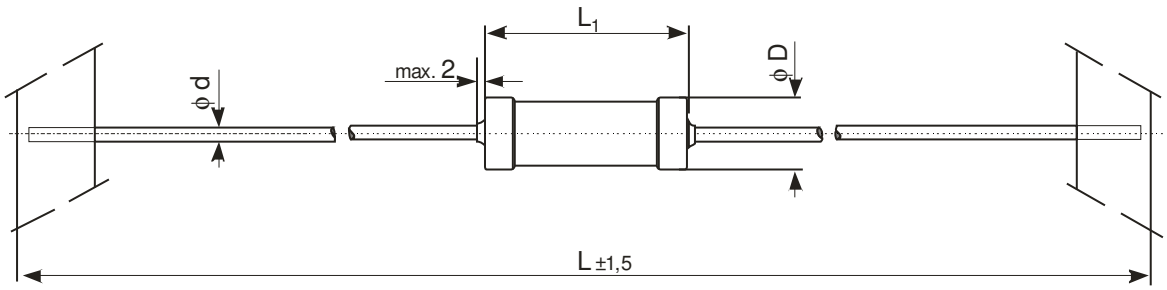
Tel:+ 351 214 457 700 - Fax:351 214 457 755 – Germany Sales Tel:+ 0049 4121 870 103 - e-mail:vitrohm.support@yageo.com – www.vitrohm.com

Dimensions in mm:



PO595-0 Resistance range	PO593-0 Resistance range	PO590-0 Resistance range	PO591-0 Resistance range	E-series	Tolerance	TC 10^{-6} K^{-1}
0R1 … 10M	0R22 … 10M	0R22 … 560K	0R22 … 100K	E 24	± 5%	± 200
-----	1R … 1M	1R … 100K	1R … 68K	E 24 / E 48	± 2%	± 200
1R … 1M	-----	-----	-----	E 24 / E 96	± 1%	± 50

Type	L1 [mm]	Ø D [mm]	Ø d [mm]	L ±1,5 [mm]	Inside tape [mm]
PO595-0	6,3 ±0,5	2,4 ±0,2	0,6 -0,1	65	52
PO593-0	11,5 ±1,0	4,5 ±0,5	0,8 ±0,02	85	73
PO590-0	16,5 -1,5	6,0 -0,5	0,8 ±0,02	95	77
PO591-0	20 -1	9,0 -0,5	0,8 ±0,02	95	77

Packaging:

Type	Packaging	Packing style	Pieces
PO595-0	Taped/Ammopack	T	5000
PO593-0	Taped/Ammopack	T	1000
PO590-0	Taped/Ammopack	T	1000
PO591-0	Taped/Ammopack	T	500

Ordering example:

PO593-0	5	T	15R
Type	Tolerance	Pack.-Code	R- value

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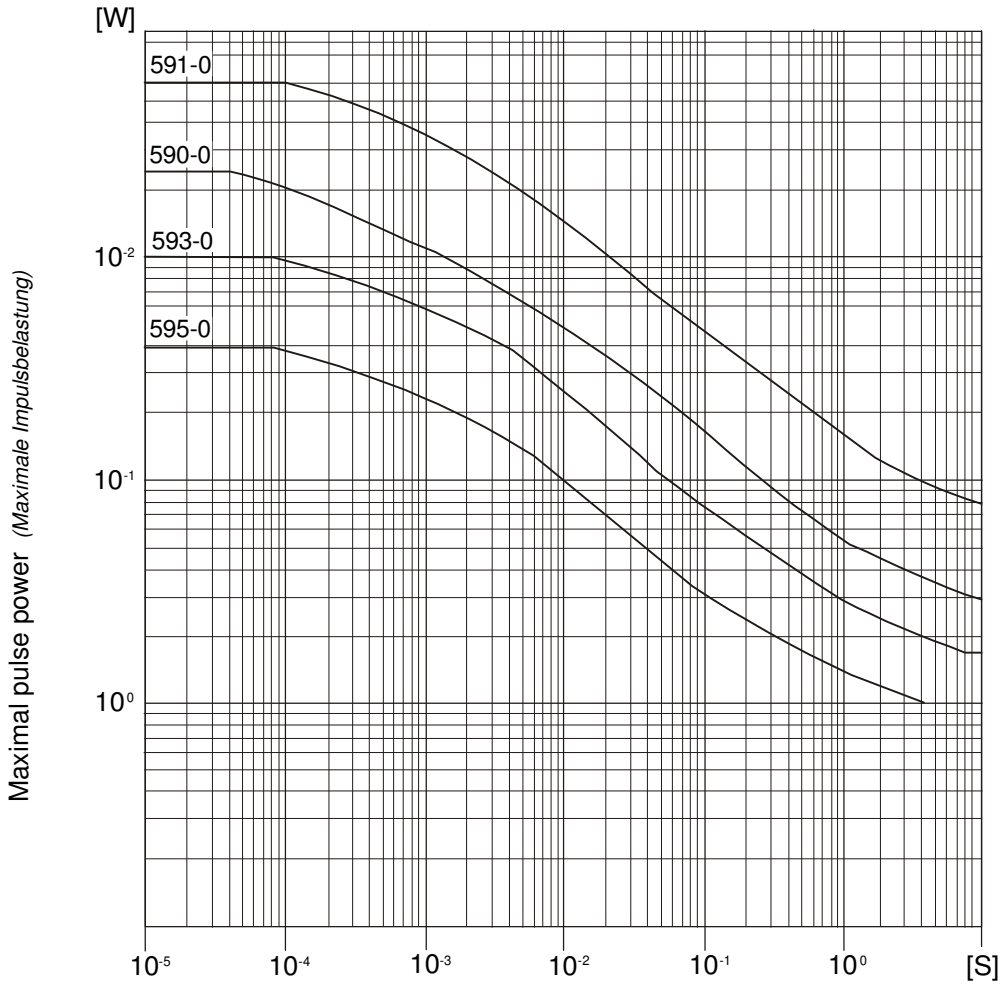
Pulse Power

Diagram 1

pulse power $\overline{P} \leq P_{70}$, $\vartheta\upsilon$ 70ºC, R≥10 Ω , Umax. see Diagram 3

Impulsbelastung $P \leq P_{70}$, $\vartheta\upsilon$ 70ºC, R≥10 Ω , Umax. Siehe Diagramm 3



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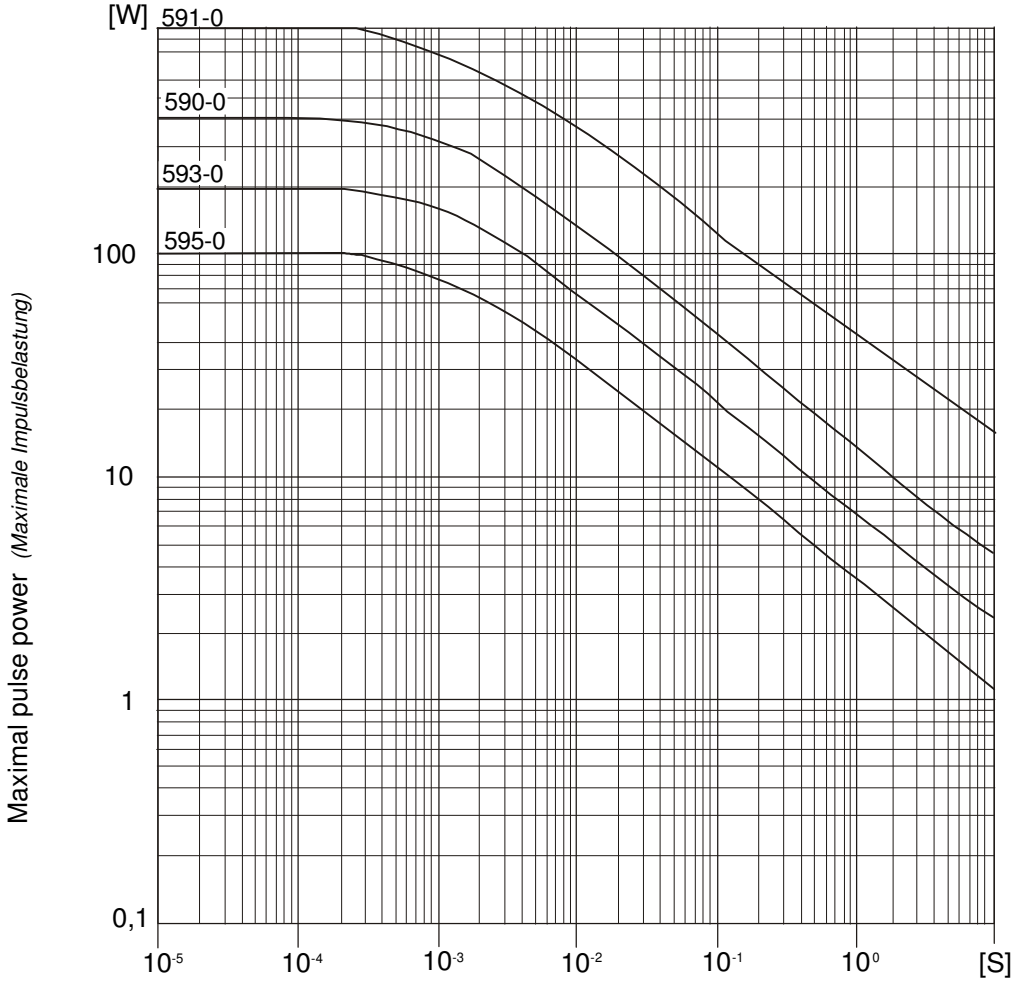
Single Pulse

Diagram 2

Single pulse P → 0, ϑυ 70ºC, R≥10 Ω , Umax. see Diagram 3

Einzelimpulse P → 0 , ϑυ 70ºC, R≥10 Ω , Umax. Siehe Diagramm 3



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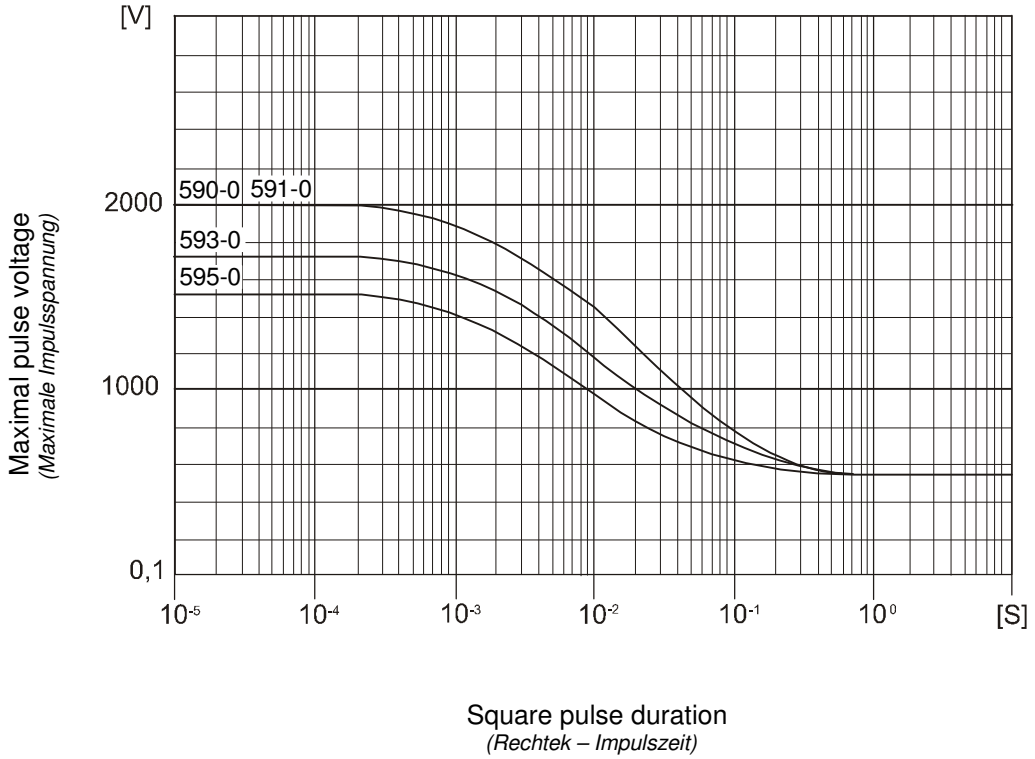
Pulse voltage

Diagram 3

Pulse voltage $\vartheta u \leq 70^{\circ}C$

(Impulsspannung $\vartheta u \leq 70^{\circ}C$)



Square pulse duration

(Rechtek – Impulszeit)

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