



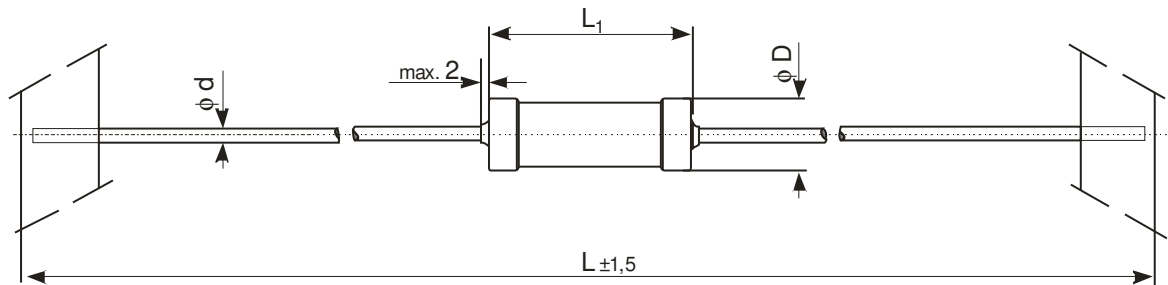
## Power Metaloxide film resistor

### Flame retardant

#### Specifications

		PO595-0	PO593-0	PO590-0	PO591-0
Type					
Style		0207	0414	0617	0922
Nominal Power rating $P_{70}$	W	1	2	3	4
Resistance range	$\Omega$	See next page			
E-series		See next page			
Tolerances	%	See next page			
Temperature coefficient	$10^{-6} \cdot K^{-1}$	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	$\Omega$	> $10^3 M$			
Derating, Linear, 70....	$^{\circ}C$	200	235	250	250
Climatic category		55 / 200 / 56			
Temperature range	$^{\circ}C$	- 55 ... 200	- 55 ... 235	- 55 ... 250	- 55 ... 250
Thermal resistance	$KW^{-1}$	125	80	60	45
Failure rate (Total $\vartheta_0$ max, 60% conf. lev.)	$10^{-9} h^{-1}$	<10			
Endurance ( $P_{70}$ , @ 70 $^{\circ}C$ , 1000h intem.)	$[\Delta R/R] \%$	$\pm 2,0$	$\pm 2,0$	$\pm 1,5$	$\pm 1,5$
Damp heat, steady state (40 $^{\circ}C$ , 93% r.h., 56d)	$[\Delta R/R] \%$	$\pm 2,0$	$\pm 2,0$	$\pm 1,5$	$\pm 1,5$
Climatic sequence	$[\Delta R/R] \%$	$\pm 1,0$			
Terminal Strength	$[\Delta R/R] \%$	$\pm 0,3$			
Terminal tensile Strength	N	40			
Resistance to soldering heat (260 $^{\circ}C$ , 10s.)	$[\Delta R/R] \%$	$\pm 0,25$			
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			

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

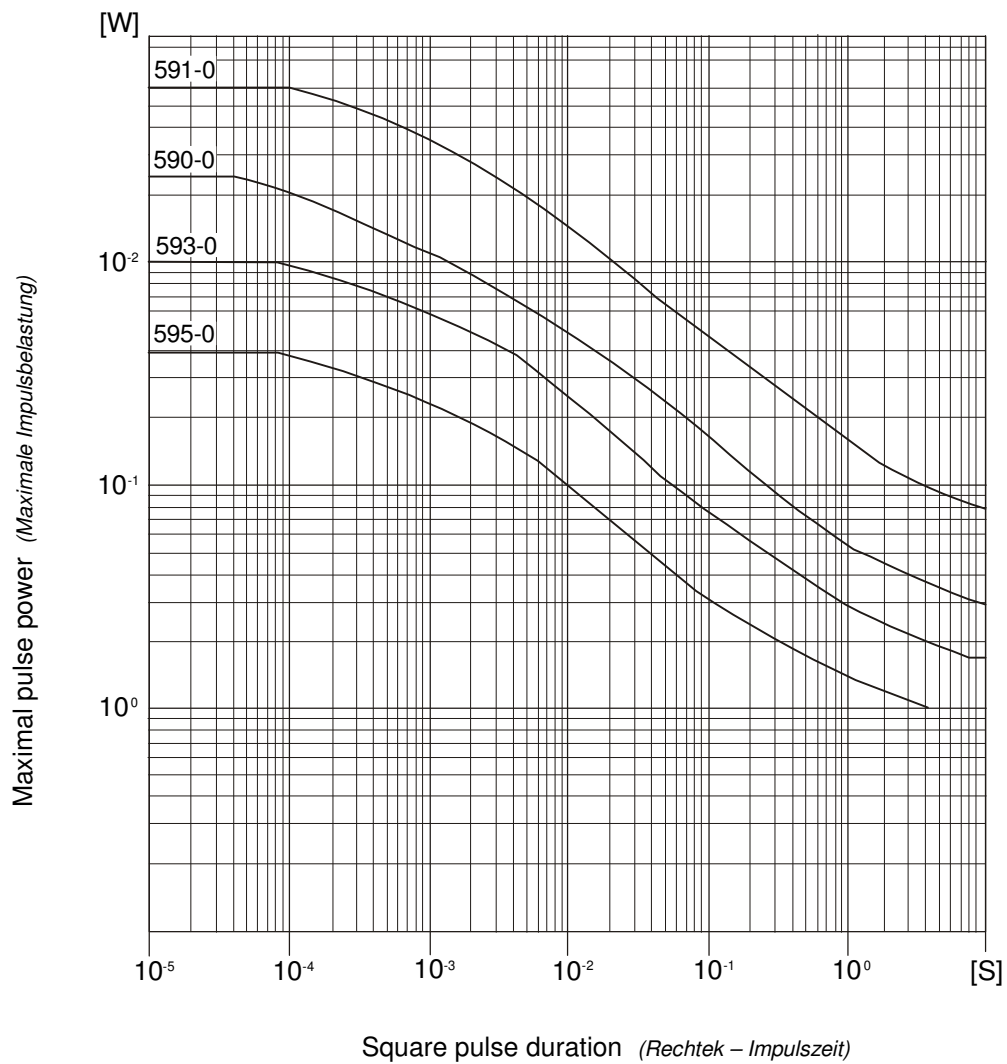
Ordering example: PO593-0      5      T      15R  
 Type      Tolerance      Pack.-Code      R- value

## Pulse Power

Diagram 1

pulse power  $\bar{P} \leq P_{70}$ ,  $\vartheta_v 70^\circ\text{C}$ ,  $R \geq 10 \Omega$ ,  $U_{\text{max}}$ . see Diagram 3

Impulsbelastung  $P \leq P_{70}$ ,  $\vartheta_v 70^\circ\text{C}$ ,  $R \geq 10 \Omega$ ,  $U_{\text{max}}$ . Siehe Diagramm 3

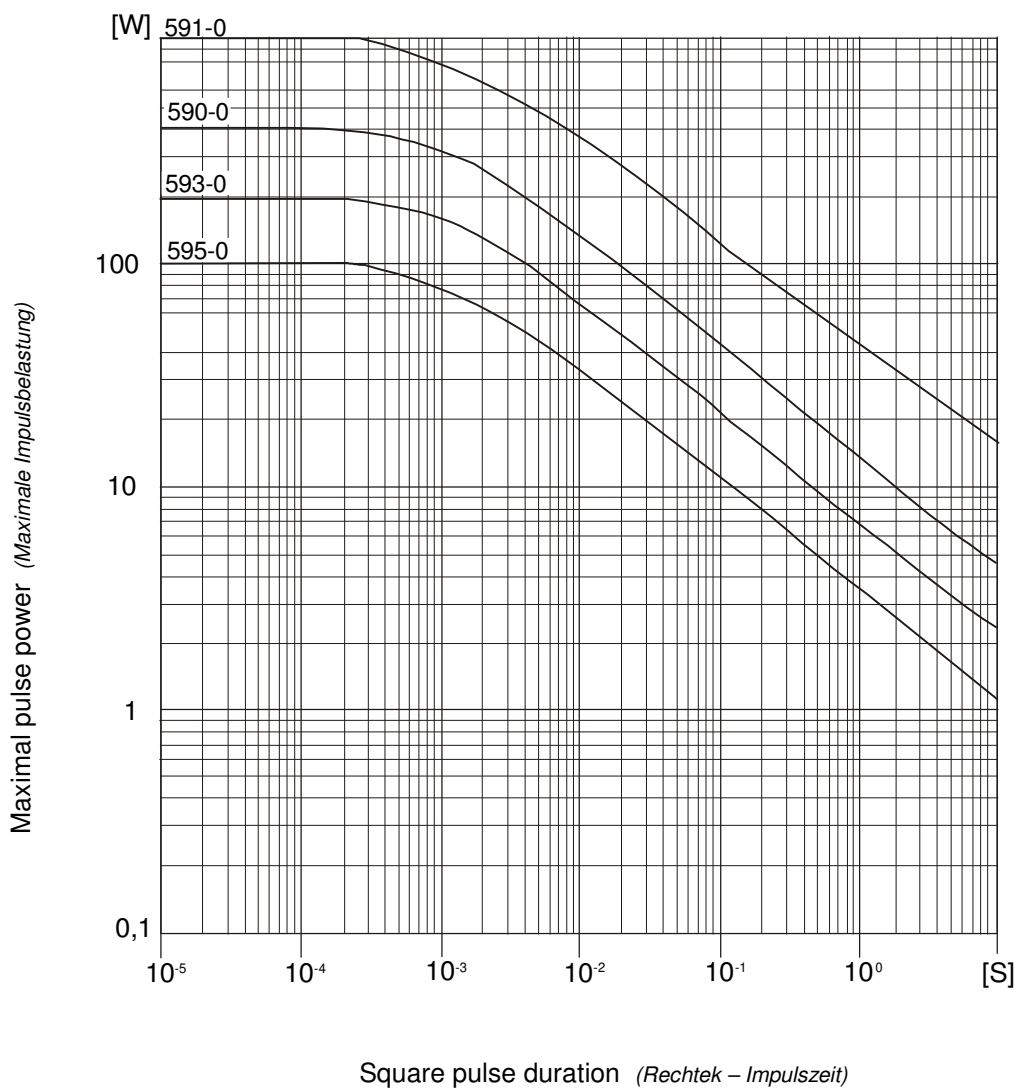


### Single Pulse

Diagram 2

Single pulse  $P \rightarrow 0$ ,  $\theta_{\text{v}} 70^{\circ}\text{C}$ ,  $R \geq 10 \Omega$ ,  $U_{\text{max}}$ . see Diagram 3

Einzelimpulse  $P \rightarrow 0$ ,  $\theta_{\text{v}} 70^{\circ}\text{C}$ ,  $R \geq 10 \Omega$ ,  $U_{\text{max}}$ . Siehe Diagramm 3



## Pulse voltage

Diagram 3

Pulse voltage  $\vartheta_v \leq 70^\circ\text{C}$   
(Impulsspannung  $\vartheta_v \leq 70^\circ\text{C}$ )

