

**Power Metaloxide film resistors
 flame retardant**

Specification

Type		595-0	593-0	590-0	591-0
Style		0207	0414	0617	0922
Power rating P_{70}	W	1	2	3	4
Resistance range	Ω		see page 2		
E-series			see page 2		
Tolerance	%		see page 2		
Temperature coefficient	$10^{-6} * K^{-1}$		see page 2		
max. cont. working voltage	V_{RMS}	500		750	$\sqrt{P \cdot R}$
Voltage coefficient	$10^{-6} V^{-1}$		< 3		
Insulation voltage (1min.)	V_{RMS}		500		
Insulation resistance	Ω		> $10^3 M$		
Derating	$^{\circ}C$		linear 70 ... 250 (0W)		
Climatic category			55/200/56		
Temperature range	$^{\circ}C$		- 55 ... 250		
Thermal resistance	KW^{-1}	< 140	< 130	< 70	< 60
Failure rate (Total, ϑ_0 max. 60% conf. lev.)	$10^{-9} h^{-1}$		< 10		
Endurance (P_{70} , @ 70 $^{\circ}C$, 1000h, interm.)	$\left[\frac{\Delta R}{R} \right] \%$	$\pm 1,5$	$\pm 3,0$	$\pm 3,0$	$\pm 3,0$
Damp heat, steady state (40 $^{\circ}C$, 93% r.h., 56d)	$\left[\frac{\Delta R}{R} \right] \%$		$\pm 1,0$		
Climatic sequence	$\left[\frac{\Delta R}{R} \right] \%$		$\pm 1,0$		

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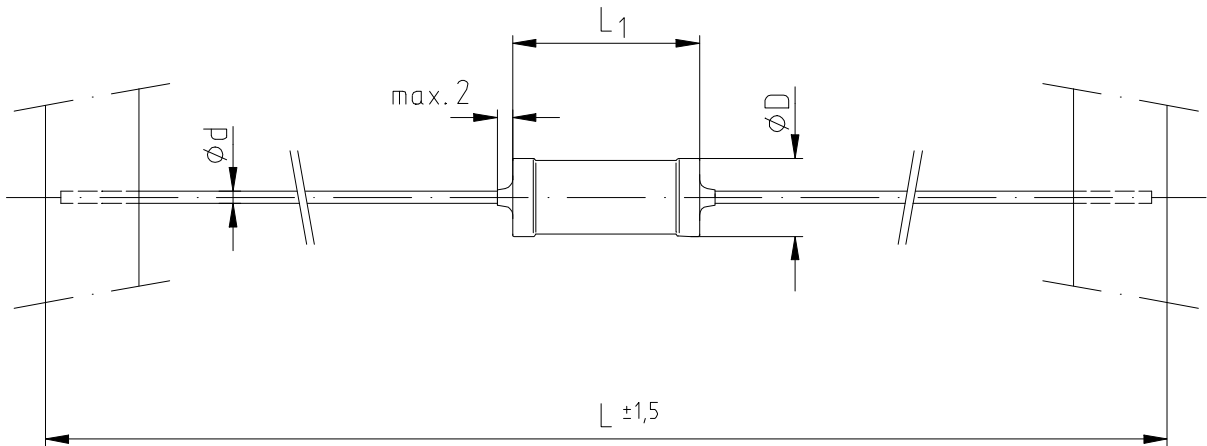
Type		595-0	593-0	590-0	591-0
Resistance to soldering heat (260°C, 10s)	$\left[\frac{\Delta R}{R} \right] \%$			± 0,2	
Terminal strength	$\left[\frac{\Delta R}{R} \right] \%$			± 0,3	
Terminal tensile strength	N			40	
Solderability	s	2,5 Flowtime, Solderglobule test (IEC 60068-2-20 T)			
Current noise (DIN/IEC 195)	dB	R < 15K: - 15 R > 15K: - 15 +10/decade			
Nonlinearity (DIN/IEC 440)	dB	R < 15K: 110 R > 15K: 110 -20/decade			
Marking		595/593: DIN-IEC-colour code, 4/5 bands 590/591: printed in clear			

595 Resistance range	593 Resistance range	590 Resistance range	591 Resistance range	E-series	Tolerance	TC 10 ⁻⁶ K ⁻¹
R22 ... 10M	R22 ... 10M	R22 ... 560K	R22 ... 100K	E 24	± 5%	± 200
--	1R0 ... 1M0	1R0 ... 100K	1R0 ... 68K	E 48	± 2%	± 200
10R ... 1M0	--	--	--	E 96	± 1%	± 50

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Dimensions in mm:



Type	L_1 [mm]	$\varnothing D$ [mm]	$\varnothing d$ [mm]	$L \pm 1,5$ [mm]	inside tape [mm]
595-0	6,3 -1	2,5 -0,5	0,6 $\pm 0,02$	65	53
593-0	12 -1,5	4,1 -0,5	0,8 $\pm 0,02$	85	73
590-0	16,5 -1,5	6,0 -0,5	0,8 $\pm 0,02$	95	77
591-0	20 -1	9,0 -0,5	0,8 $\pm 0,02$	95	77

Packaging:

Type	Packaging	Pieces	Pack.-Code
595-0	taped/Ammopack	2000	10
593-0	taped/Ammopack	1000	10
590-0	taped/Ammopack	1000	10
591-0	taped/Ammopack	500	10

Ordering example: 593-0 10K 2% 10
 Type Value Tolerance Pack.-Code