

Power Type Resistors

Quick Guide

Products	Type	Features	Power Rating at 70 °C (W)	Resistance Range (Ω)	Resistance Tolerance (%)	T.C.R. $\times 10^{-3}/^{\circ}\text{C}$	Category Temperature Range (°C)	Reference Standards	For Automatic Placement	Mass (Weight) [g/pc.]	Standard Quantity	Page	
Metal Oxide Film Resistors Small Size	ERG12S	Non flammable coating Small size	0.5	10 to 47 k	±5	±350	-55 to +130	IEC 60115-2 IEC 60115-4 JIS C 5201-4	52 mm Taping 74 mm Taping	0.26	2000	50	
				10 to 22 k	±2					0.33	2000		
	ERG1S, 1F		1	10 to 100 k	±5		±300			-55 to +200	0.66		1000
				10 to 68 k	±2						1.47		1000
	ERG2S, 2F		2	10 to 100 k	±5		±200			-55 to +200	3.54		500
	ERG3S, 3F		3	10 to 100 k	±2						0.26		2000
ERG5S, 5F	5	10 to 100 k			±5	±200	-55 to +200	0.33	2000				
Metal Film Resistors, Small Size	ERX12S	Non flammable coating Low resistance value	0.5	0.1 to 9.1	±5	±350	-55 to +130	IEC 60115-2 IEC 60115-4	52 mm Taping 74 mm Taping Radial Taping	0.26	2000	57	
				0.1 to 9.1	±2					0.33	2000		
	ERX1S, 1F		1	0.1 to 9.1	±5		±300			-55 to +200	0.66		1000
				0.1 to 9.1	±2						1.47		1000
	ERX2S, 2F		2	0.1 to 9.1	±5		±200			-55 to +200	3.54		500
	ERX3S, 3F				3						0.1 to 9.1		±5
ERX5S, 5F	5	0.33 to 9.1	±5	±200		-55 to +200	0.33	2000					
			1 to 9.1	±2			0.66	1000					
Anti-Pulse Power Resistors	ERG12D	High resistance value	0.5	51 k to 240 k	±2 ±5	—	-55 to +130	—	52 mm Taping 74 mm Taping	0.26	2000	59	
	ERG1D		1	110 k to 330 k			0.33			2000			
	ERG2D		2	110 k to 510 k			0.66			1000			
	ERG3D		3	110 k to 750 k			1.47			1000			
Metal Film Resistors	ERX12L	Low resistance value	0.5	22 m to 82 m	±5	±500 ±1000	-55 to +130	—	Radial Taping	0.26	2000	61	
	ERX1L		1				0.33			2000			
	ERX2L		2				0.66			1000			
Wirewound Resistors Flameproof Bath-tub Type Discontinued	ERF2A	Axial leads type	2	0.1 to 8.2	±10	±260	-55 to +155	IEC 60115-4 EIAJ RC-2123A	—	2	1000	61	
				10 to 390	±5					4			
	ERF3A		3	0.18 to 8.2	±10					5			
				10 to 680	±5					8			
	ERF5A		5	0.18 to 8.2	±10					12	500		
				10 to 680	±5								
	ERF7A		7	0.22 to 8.2	±10					3.9	500		
				10 to 1.5 k	±5								
	ERF10A		10	0.33 to 8.2	±10					3.9	500		
	10 to 2.4 k		±5										
	ERF2TL		2	0.01 to 0.082	±10					±10 (min. < 8.2 Ω)	500		
	ERF3TL		3										
	ERF5TL		5										
	ERF7TL		7	0.01 to 0.1	±10					±5 (10 Ω ≤)	500		
ERF10TL	10												
ERF2T	2	0.1 to 390	±10 (min. < 8.2 Ω)	±5 (10 Ω ≤)	500								
ERF3T	3	0.18 to 680											
ERF5T	5	0.18 to 680	±10 (min. < 8.2 Ω)	±5 (10 Ω ≤)	500								
ERF7T	7	0.22 to 1.5 k											
ERF10T	10	0.33 to 2 k	±10 (min. < 8.2 Ω)	±5 (10 Ω ≤)	500								

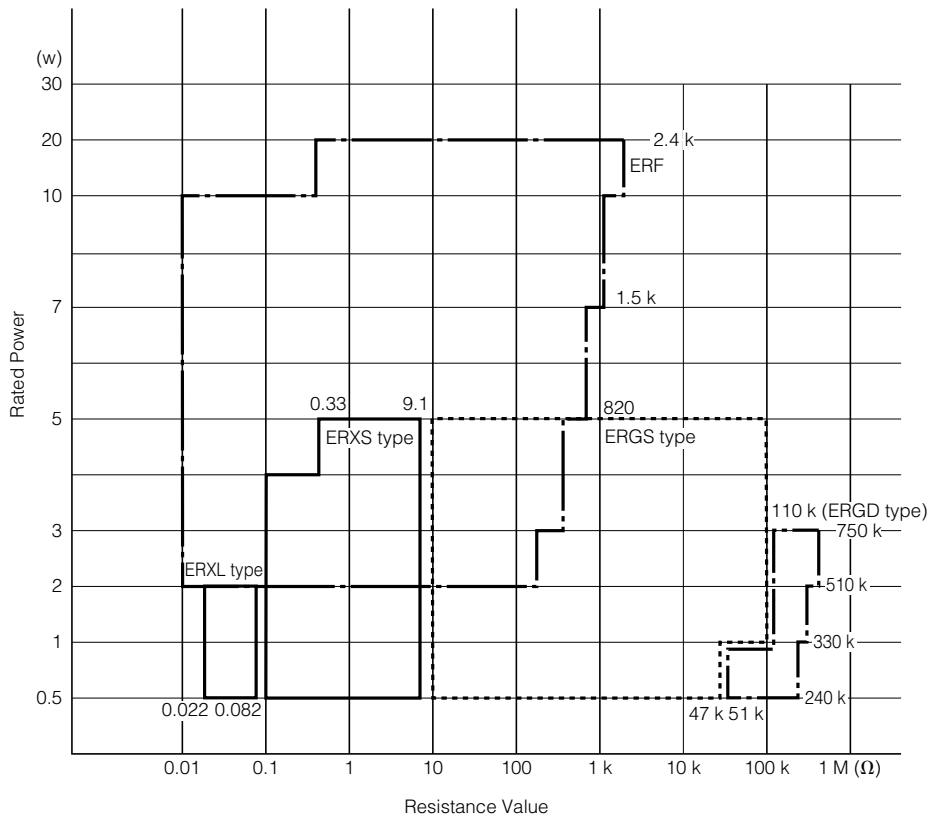
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Wirewound Resistors Flameproof Bath-tub Type Discontinued	ERF5ZX	Off PC board type	5	0.22 to 8.2	±10	±260	-55 to +155	IEC 60115-4 EIAJ RC-2123A	—	6	500	61
	ERF5ZY			7								
	ERF5Z			6.9								
	ERF7ZX		7	0.39 to 8.2	±10					7.6		
	ERF7ZY			10 to 1.5 k	±5					8.6		
	ERF7Z			8.5								
	ERF10ZX		10	0.39 to 8.2	±10					10		
	ERF10ZY			10 to 2.2 k	±5					10.8		
	ERF10Z			10.6								
	ERF15ZX		15	0.51 to 8.2	±10					17		
	ERF15ZY			10 to 2.2 k	±5					20		
	ERF15Z			19.2								
	ERF20ZX		20	0.51 to 8.2	±10					23.5		
	ERF20ZY			10 to 2.4 k	±5					26.5		
	ERF20Z			25.7								
Wirewound Resistors Flameproof Bath-tub Type High power (with Aluminum case type) Discontinued	ERF60W	Flameproof	60	1.2 to 450	±5 ±10	—	—	—	—	—	50	65
ERF100W	100		8.2 to 910									
ERF150W	150		11 to 1.2 k									
ERF200W	200		15 to 1.6 k									

Electric Power Consumption vs. Resistance Value

ERX : Metal Film Resistors
 ERG : Metal Oxide Film Resistors
 ERF : Wirewound Resistors

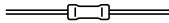






Fusing Resistors

Quick Guide

Products	Type	Features	Power Rating at 70 °C (W)	Resistance Range (Ω)	Resistance Tolerance (%)	T.C.R. $\times 10^{-3}/^{\circ}\text{C}$	Reference Standards	For Automatic Placement	Mass (Weight) [g/ pc.]	Page
Metal Film Fusing Resistors	ERQ14Z	Small size coating type	0.25	1 to 1.8	± 5	± 350	EIAJ RC-2125	2000 pcs./box	0.24	68
	ERQ14A			2 to 470						
	ERQ12Z		1 to 1.8							
	ERQ12A		2 to 560							
	ERQ1Z		1	1 to 1.8				1000 pcs./box	0.64	
	ERQ1AB		2 to 560							
	ERQ2Z		2	1 to 1.8						
	ERQ2AB		2 to 560							
Wirewound Resistor with Thermal Cut-offs Discontinued	ERU5TB	Wirewound resistor with thermal cut-offs	ERU5TB : 1.6	0.18 to 8.2	± 10	± 260	—	—	6.5	75
	ERU5TC		ERU5TC : 1.8	10 to 680	± 5					

■ Style

Class-ification	Metal Film Fusing Resistors	Wirewound Resistor with Thermal Cut-offs
Electric Power		
0.25 W		
0.5 W		
1 W		
1.6 W 1.8 W		
2 W		

■ Application Notes

Confirm following points for your selection.

1. Consider to use within the sufficient allowance under the power derating curve.
2. Confirm if overload condition at abnormal usage is within the fusing sphere.
3. In case of application of pulse waveform voltage, confirm if it is within the limit of the fuse type resistor.
4. Confirm the cautions described in each fuse type resistor.

As we produce fuse type resistors of different rated powers, appearances and resistance ranges, select them for the purpose of your use. If you use fuse type resistor in special conditions or do not understand to select it, ask us before use.