

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 NRFND	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
	ERG1S, 1F			10 to 22 k	±2					0.33	2000	
	ERG2S, 2F		1	10 to 100 k	±5		-55 to +200			0.66	1000	
	ERG3S, 3F		2	10 to 100 k	±2					1.47	1000	
	ERG5S, 5F		3	10 to 100 k	±5		±300			3.54	500	
			5	10 to 100 k	±2	±200						
Metal Film Resistors, Small Size NRFND	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	Radial Taping	0.26	2000	50
	ERX1S, 1F			0.1 to 9.1	±2					0.33	2000	
	ERX2S, 2F		1	0.1 to 9.1	±5		-55 to +200			0.66	1000	
	ERX3S, 3F		2	0.1 to 9.1	±2					1.47	1000	
	ERX5S, 5F		3	0.1 to 9.1	±5		±300			3.54	500	
			5	0.33 to 9.1 1 to 9.1	±5 ±2	±200						
Anti-Pulse Power Resistors NRFND	ERG12D	High resistance value	0.5	51 k to 240 k	±2	—	-55 to +130	—	52 mm Taping 74 mm Taping	0.26	2000	57
	ERG1D			110 k to 330 k						0.33	2000	
	ERG2D		2	110 k to 510 k	±5		-55 to +200			0.66	1000	
	ERG3D		3	110 k to 750 k						1.47	1000	
Metal Film Resistors NRFND	ERX12L	Low resistance value	0.5	22 m to 82 m	±5	±500 ±1000	-55 to +130	—	Radial Taping	0.26	2000	59
	ERX1L									1	-55 to +200	
	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					500		
				10 to 680	±5							
	ERF7A		7	0.22 to 8.2	±10					500		
				10 to 1.5 k	±5							
	ERF10A		10	0.33 to 8.2	±10					500		
				10 to 2.4 k	±5							
	ERF2TL		2	0.01 to 0.082	±10					500		
	ERF3TL		3									
	ERF5TL		5									
	ERF7TL		7	0.01 to 0.1	±10					500		
ERF10TL	10											
ERF2T	2	Radial insertion type	0.1 to 390	±10 (min. < 8.2 Ω) ±5 (10 Ω≤)	3.9	500						
ERF3T	3				5.5							
ERF5T	5				6.7							
ERF7T	7				8.8							
ERF10T	10				10.7							
ERF2T	2				3.9							
ERF3T	3				5.5							
ERF5T	5				6.7							
ERF7T	7				8.8							
ERF10T	10				10.7							

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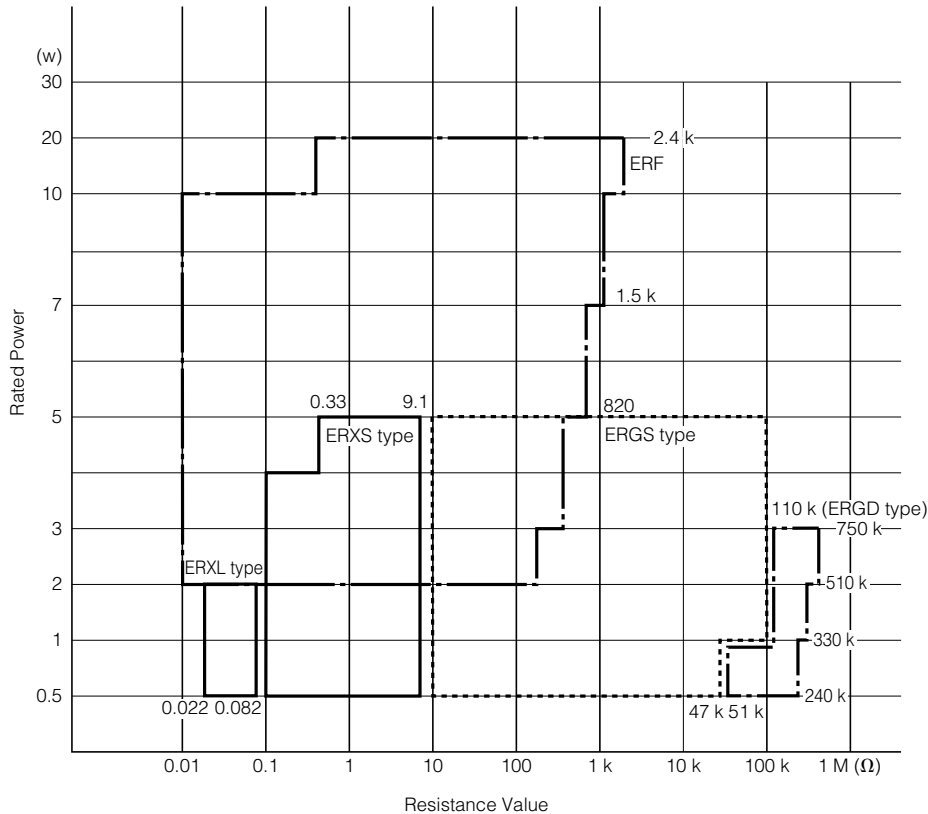
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Wirewound Resistors Flameproof Bath-tub Type	ERF5ZX	Off PC board type	5	0.22 to 8.2	±10	±260	-55 to +155	IEC 60115-4 EIAJ RC-2123A	—	6	500	61
	ERF5ZY			7								
	ERF5Z			6.9								
	ERF7ZX		7	0.39 to 8.2	±10					7.6		
	ERF7ZY			10 to 1.5 k	±5			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

Discontinued

Electric Power Consumption vs. Resistance Value

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

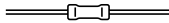






Fusing Resistors

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Metal Film Fusing Resistors NRFND	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 Electric Power	Metal Film Fusing Resistors	Wirewound Resistor with Thermal Cut-offs
	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.