RE Series

High-Precision Metal-Film Resistors

Technical Features

High stability / reliability; coated package

High precision: resistance tolerance ±0.01% ~ ±1.00%

Low TCR: ±2PPM/°C ~ ±50PPM/°C
(test temperature: 25°C ~ 85°C)

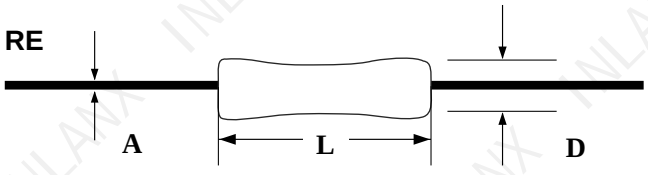
Operating temperature range: -55°C ~ +175°C

Rated voltage = √(rated power × nominal resistance)



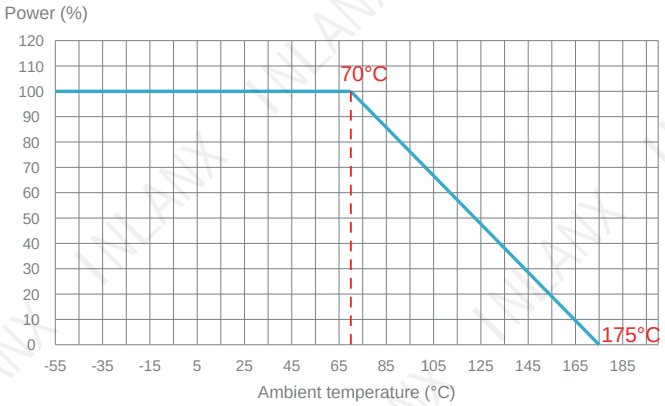
Dimensions (mm)

Model	RE50	RE55	RE60	RE65	RE70	RE75
L±0.3	4.10	6.90	9.80	12.5	14.1	17.8
D±0.3	1.40	2.05	3.20	3.60	4.65	7.20
A±0.05	0.40	0.60	0.60	0.60	0.80	0.80



Outline Dimensions

Power Derating Curve



Ordering Example

Model	Resistance	Tolerance	TCR
RE65	150K	A5	C7

Technical Parameters

Model	Rated power at 70°C	Max. working voltage	Resistance tolerance	Resistance range	Temperature coefficient
RE50	1/8W	200V	B/C/D/F	1Ω~5Ω	C6/C5/C3/C2
	1/8W	200V	A5/B/C/D/F	5Ω~10Ω	C7/C6/C5/C3/C2
	1/8W	200V	A5/B/C/D/F	10Ω~1MΩ	C7/C6/C5/C3/C2
	1/8W	200V	A5/B/C/D/F	1MΩ~2MΩ	C6/C5/C3/C2
RE55	1/4W	200V	F	0.05Ω~1Ω	> 100PPM
	1/4W	200V	B/C/D/F	1Ω~5Ω	C6/C5/C3/C2
	1/4W	200V	A5/B/C/D/F	5Ω~100Ω	C7/C6/C5/C3/C2
	1/4W	200V	T/A2/A5/B/C/D/F	100Ω~200KΩ	C10/C9/C8/C7/C6/C5/C3/C2
	1/4W	200V	A5/B/C/D/F	200KΩ~3MΩ	C7/C6/C5/C3/C2
	1/4W	200V	B/C/D/F	3MΩ~5MΩ	C6/C5/C3/C2
RE60	1/2W	250V	F	0.05Ω~1Ω	> 100PPM
	1/2W	250V	B/C/D/F	1Ω~5Ω	C6/C5/C3/C2
	1/2W	250V	A5/B/C/D/F	5Ω~100Ω	C7/C6/C5/C3/C2
	1/2W	250V	T/A2/A5/B/C/D/F	100Ω~200KΩ	C10/C9/C8/C7/C6/C5/C3/C2
	1/2W	250V	A5/B/C/D/F	200KΩ~3MΩ	C7/C6/C5/C3/C2
	1/2W	250V	B/C/D/F	3MΩ~5MΩ	C6/C5/C3/C2
RE65	3/4W	300V	F	0.05Ω~1Ω	> 100PPM
	3/4W	300V	B/C/D/F	1Ω~5Ω	C6/C5/C3/C2
	3/4W	300V	A5/B/C/D/F	5Ω~100Ω	C7/C6/C5/C3/C2
	3/4W	300V	T/A2/A5/B/C/D/F	100Ω~200KΩ	C10/C9/C8/C7/C6/C5/C3/C2
	3/4W	300V	A5/B/C/D/F	200KΩ~3MΩ	C7/C6/C5/C3/C2
	3/4W	300V	B/C/D/F	3MΩ~5MΩ	C6/C5/C3/C2
RE70	1W	350V	F	0.05Ω~1Ω	> 100PPM
	1W	350V	B/C/D/F	1Ω~5Ω	C6/C5/C3/C2
	1W	350V	A5/B/C/D/F	5Ω~100Ω	C7/C6/C5/C3/C2
	1W	350V	T/A2/A5/B/C/D/F	100Ω~200KΩ	C10/C9/C8/C7/C6/C5/C3/C2
	1W	350V	A5/B/C/D/F	200KΩ~3MΩ	C7/C6/C5/C3/C2
	1W	350V	B/C/D/F	3MΩ~5MΩ	C6/C5/C3/C2
RE75	1.5W	500V	F	0.05Ω~1Ω	> 100PPM
	1.5W	500V	B/C/D/F	1Ω~5Ω	C6/C5/C3/C2
	1.5W	500V	A5/B/C/D/F	5Ω~100Ω	C7/C6/C5/C3/C2
	1.5W	500V	T/A2/A5/B/C/D/F	100Ω~200KΩ	C10/C9/C8/C7/C6/C5/C3/C2
	1.5W	500V	A5/B/C/D/F	200KΩ~3MΩ	C7/C6/C5/C3/C2
	1.5W	500V	B/C/D/F	3MΩ~5MΩ	C6/C5/C3/C2

1) TCR test temperature range: 25°C ~ 85°C. Other temperature ranges are available by agreement.

2) Nominal resistance, resistance tolerance and TCR outside the above limits are available by agreement.

Resistance Tolerance Codes

F	D	C	B	A5	A4	A3	A2	T
±1%	±0.5%	±0.25%	±0.1%	±0.05%	±0.04%	±0.03%	±0.02%	±0.01%

Temperature Coefficient Codes

C2	C3	C4	C5	C6	C7	C8	C9	C10
±50ppm/℃	±25ppm/℃	±20ppm/℃	±15ppm/℃	±10ppm/℃	±5ppm/℃	±4ppm/℃	±3ppm/℃	±2ppm/℃

Main Periodic Inspection Requirements and Methods

Test type	Item	Method	Requirement
Long-term	Load life	GJB244A（MIL-PRF-55182）4.8.18 Rated power, 125°C, 2000h Rated power, 125°C, 10000h	GJB244A（MIL-PRF-55182）3.24 ΔR≤±（0.5%R＋0.01Ω） ΔR≤±（2%R＋0.01Ω）
	Moisture resistance	GJB244A（MIL-PRF-55182）4.8.15 -10℃～+65℃、RH >90%、 Rated power, 240h cycling	GJB244A（MIL-PRF-55182）3.21 ΔR≤±（0.40%R＋0.01Ω）
	High-temperature exposure	GJB244A 4.8.19 175℃、2000h	GJB244A（MIL-PRF-55182）3.25 ΔR≤±（2.0%R＋0.01Ω）
Short-term	Dielectric withstand Low-temperature storage Low-temperature operation	GJB244A（MIL-PRF-55182） 4.8.12/4.8.23/4.8.10	GJB244A（MIL-PRF-55182）3.18/3.29/3.16 ΔR≤±（0.15%R＋0.01Ω） No mechanical damage, flashover or insulation breakdown
	Terminal strength Shock High-frequency vibration	GJB244A（MIL-PRF-55182） 4.8.11/4.8.16/4.8.17	GJB244A（MIL-PRF-55182）3.17/3.22/3.23 ΔR≤±（0.20%R＋0.01Ω） No mechanical damage
	Soldering heat resistance	GJB244A（MIL-PRF-55182）4.8.14	GJB244A（MIL-PRF-55182）3.20 ΔR≤±(0.10%R+0.01Ω); no mechanical damage