

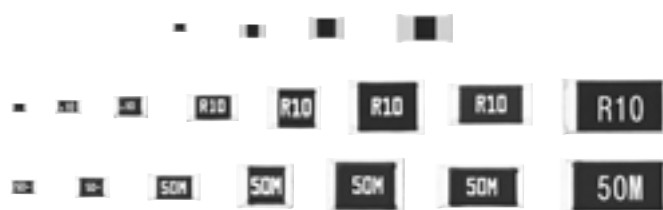
Thick Film Chip Resistors / Low Resistance Type

ERJ R, B : 0402, 0603, 0805, 1206, 1210, 1812, 2010, 2512

ERJ BW, CW : 0402, 0603, 0805, 1206

ERJ L : 0603, 0805, 1206, 1210, 1812, 2010, 2512

Type: ERJ 2B, 3B, 6B, 8B, 14B, 3R,
6R, 8R, 14R, 12R, 12Z, 1TR
ERJ 2BW, 3BW, 6BW, 8BW, 8CW
ERJ L03, L06, L08, L14, L12,
L1D, L1W



Features

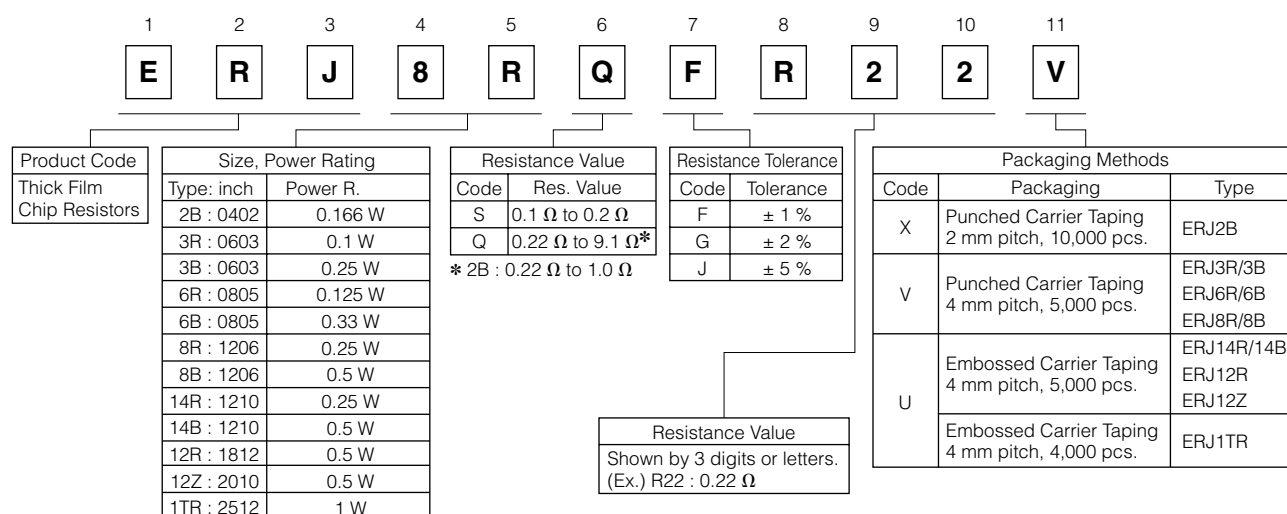
- Small size and lightweight
- High reliability : Metal glaze thick film resistive element and three layers of electrodes
- Suitable for both reflow and flow soldering
- Improved high-power/resistance to pulse characteristics
by double-sided resistive elements structure : ERJ2BW, 3BW, 6BW, 8BW, 8CW Type
- Low TCR : $\pm 50 \times 10^{-6} / ^\circ\text{C}$ (ERJ8CW)
- Low Resistance Value
 - 10 m Ω to 50 m Ω : ERJ8CW
 - 10 m Ω to 100 m Ω : ERJ6BW, 8BW
 - 20 m Ω to 100 m Ω : ERJ3BW, ERJL14, L12
 - 40 m Ω to 100 m Ω : ERJL1D, L1W
 - 47 m Ω to 100 m Ω : ERJ2BW, ERJL03, L06, L08
- Reference Standards : IEC 60115-8, JIS C 5201-8, JEITA RC-2144
- RoHS compliant

Packaging Methods, Land Pattern, Soldering Conditions and Safety Precautions

Please see Data Files

Explanation of Part Numbers

- ERJ2BS/2BQ, 3BS/3BQ, 6BS/6BQ, 8BS/8BQ, 14BS/14BQ, 3R, 6R, 8R, 14R, 12R, 12Z, 1TR Series High power type/Standard type



● ERJ2BW, 3BW, 6BW, 8BW, 8CW Series <High power (double-sided resistive elements structure) type>

	1	2	3	4	5	6	7	8	9	10	11	12
	E	R	J	2	B	W	G	R	0	4	7	X

Product Code	Code	Size:inch	Power Rating	Resistance Value	Resistance Tolerance	Resistance Value	Packaging Methods			
Thick Film Chip Resistors	2BW	0402	0.25 W	47 mΩ to 100 mΩ	Code	Shown by 4 digits or letters. (Ex.) R047 : 0.047 Ω=47 mΩ	Code	Packaging	Type	
	3BW	0603	0.25 W	20 mΩ to 100 mΩ	F		± 1 %	X	Pressed Carrier Taping 2 mm pitch, 10,000 pcs.	ERJ2BW
	6BW	0805	0.5 W	10 mΩ to 100 mΩ	G		± 2 %	V	Punched Carrier Taping 4 mm pitch, 5,000 pcs.	ERJ3BW
	8BW	1206	1 W	10 mΩ to 100 mΩ	J		± 5 %			ERJ6BW
	8CW	1206	1 W	10 mΩ to 50 mΩ						ERJ8BW ERJ8CW

● ERJL03, L06, L08, L14, L12, L1D, L1W Series Low TCR type

1	2	3	4	5	6	7	8	9	10	11	12
E	R	J	L	1	4	K	J	5	0	M	U

Product Code

Thick Film Chip Resistors

Size, Power Rating

Type: inch	Power R.
L03 : 0603	0.2 W
L06 : 0805	0.25 W
L08 : 1206	0.33 W
L14 : 1210	0.33 W
L12 : 1812	0.5 W
L1D : 2010	0.5 W
L1W : 2512	1 W

Code

Res. Value

K	Std. (20 mΩ, 22 mΩ, 33 mΩ, 39 mΩ, 47 mΩ, 50 mΩ, 100 mΩ) *
U	20 mΩ to 100 mΩ*

* L03, L06, L08 : 47 mΩ to 100 mΩ

L1D, L1W : 40 mΩ to 100 mΩ

Resistance Tolerance

Code	Tolerance
F	± 1 %
J	± 5 %

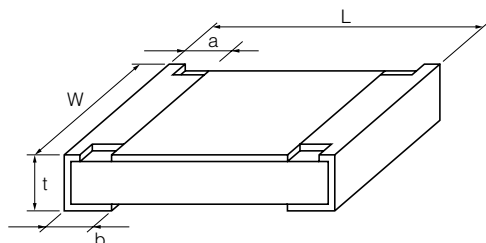
Resistance Value

Shown by 3 digits or letters.
(Ex.) 50 M:50 mΩ, 10 C:100 mΩ

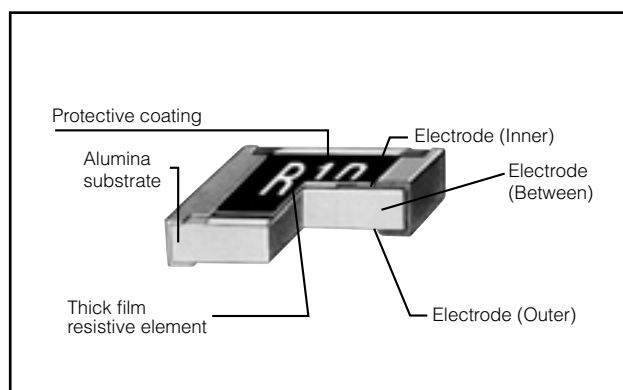
Packaging Methods

Code	Packaging	Type
V	Punched Carrier Taping 4 mm pitch, 5,000 pcs.	ERJL03 ERJL06 ERJL08
U	Embossed Carrier Taping 4 mm pitch, 5,000 pcs.	ERJL14 ERJL12 ERJL1D
	Embossed Carrier Taping 4 mm pitch, 4,000 pcs.	ERJL1W

■ Dimensions in mm (not to scale)



■ Construction



Type (inch size)	Dimensions (mm)					Mass(Weight) [g/1000pcs.]
	L	W	a	b	t	
ERJ2BW (0402)	1.00 ^{+0.10}	0.50 ^{+0.10} _{-0.05}	0.24 ^{+0.10}	0.24 ^{+0.10}	0.35 ^{+0.05}	0.8
ERJ2BS ERJ2BQ (0402)	1.00 ^{+0.10}	0.50 ^{+0.10} _{-0.05}	0.20 ^{+0.10}	0.27 ^{+0.10}	0.35 ^{+0.05}	0.8
ERJ3BW (0603)	1.60 ^{+0.15}	0.80 ^{+0.15}	0.40 ^{+0.20}	0.40 ^{+0.20}	0.55 ^{+0.10}	3
ERJ3R ERJ3B (0603) ERJL03	1.60 ^{+0.15}	0.80 ^{+0.15} _{-0.05}	0.30 ^{+0.20}	0.30 ^{+0.15}	0.45 ^{+0.10}	2
ERJ6BW(0805)	2.00 ^{+0.20}	1.25 ^{+0.20}	0.55 ^{+0.20}	0.55 ^{+0.20}	0.65 ^{+0.10}	6
ERJ6R ERJ6B (0805) ERJL06	2.00 ^{+0.20}	1.25 ^{+0.10}	0.40 ^{+0.20}	0.40 ^{+0.20}	0.60 ^{+0.10}	4
ERJ8BW(1206)	3.20 ^{+0.20}	1.60 ^{+0.20}	1.00 ^{+0.20}	1.00 ^{+0.20}	0.65 ^{+0.10}	13
ERJ8CW (10 to 16 mΩ)	3.20 ^{+0.20}	1.60 ^{+0.20}	1.10 ^{+0.20}	1.10 ^{+0.20}	0.65 ^{+0.10}	13
ERJ8CW (18 to 50 mΩ)	3.20 ^{+0.20}	1.60 ^{+0.20}	0.60 ^{+0.20}	0.60 ^{+0.20}	0.65 ^{+0.10}	13
ERJ8R ERJ8B (1206) ERJL08	3.20 ^{+0.05} _{-0.20}	1.60 ^{+0.05} _{-0.15}	0.50 ^{+0.20}	0.50 ^{+0.20}	0.60 ^{+0.10}	10
ERJ14R ERJ14B (1210) ERJL14	3.20 ^{+0.20}	2.50 ^{+0.20}	0.50 ^{+0.20}	0.50 ^{+0.20}	0.60 ^{+0.10}	16
ERJ12R ERJL12 (1812)	4.50 ^{+0.20}	3.20 ^{+0.20}	0.50 ^{+0.20}	0.50 ^{+0.20}	0.60 ^{+0.10}	27
ERJ12Z ERJL1D (2010)	5.00 ^{+0.20}	2.50 ^{+0.20}	0.60 ^{+0.20}	0.60 ^{+0.20}	0.60 ^{+0.10}	27
ERJ1TR ERJL1W (2512)	6.40 ^{+0.20}	3.20 ^{+0.20}	0.65 ^{+0.20}	0.60 ^{+0.20}	0.60 ^{+0.10}	45
	6.40 ^{+0.20}	3.20 ^{+0.20}	0.65 ^{+0.20}	1.30 ^{+0.20}	1.10 ^{+0.10}	79

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Ratings

<High power type>

Type (inch size)	Power Rating at 70 °C (W)	Resistance Tolerance (%)	Resistance ⁽¹⁾ Range (Ω)	T.C.R. (×10 ⁻⁶ /°C)	Category Temperature Range (°C)
ERJ2BS (0402)	0.166	±1, ±2, ±5	0.10 to 0.20 (E24)	±300	-55 to +125
ERJ2BQ (0402)			0.22 to 1.0 (E24)	±250	
ERJ3BS (0603)	0.25	±1, ±2, ±5	0.10 to 0.20 (E24)	±300	-55 to +125
ERJ3BQ (0603)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±200	
ERJ6BS (0805)	0.33	±1, ±2, ±5	0.10 to 0.20 (E24)	±250	-55 to +125
ERJ6BQ (0805)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±200	
ERJ8BS (1206)	0.5	±1, ±2, ±5	0.10 to 0.20 (E24)	±250	-55 to +125
ERJ8BQ (1206)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±200	
ERJ14BS (1210)	0.5	±1, ±2, ±5	0.10 to 0.20 (E24)	±200	-55 to +125
ERJ14BQ (1210)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±100	

(1) Please contact us when resistors of irregular series are needed.

<Standard type>

Type (inch size)	Power Rating at 70 °C (W)	Resistance Tolerance (%)	Resistance Range (Ω)	T.C.R. (×10 ⁻⁶ /°C)	Category Temperature Range (°C)
ERJ3RS (0603)	0.1	±1, ±2, ±5	0.10 to 0.20 (E24)	±300	-55 to +125
ERJ3RQ (0603)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±200	
ERJ6RS (0805)	0.125	±1, ±2, ±5	0.10 to 0.20 (E24)	±250	-55 to +125
ERJ6RQ (0805)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±200	
ERJ8RS (1206)	0.25	±1, ±2, ±5	0.10 to 0.20 (E24)	±250	-55 to +125
ERJ8RQ (1206)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±200	
ERJ14RS (1210)	0.25	±1, ±2, ±5	0.10 to 0.20 (E24)	±200	-55 to +125
ERJ14RQ (1210)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±100	
ERJ12RS (1812)	0.5	±1, ±2, ±5	0.10 to 0.20 (E24)	±200	-55 to +125
ERJ12RQ (1812)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±100	
ERJ12ZS (2010)	0.5	±1, ±2, ±5	0.10 to 0.20 (E24)	±200	-55 ~ +125
ERJ12ZQ (2010)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±100	
ERJ1TRS (2512)	1	±1, ±2, ±5	0.10 to 0.20 (E24)	±200	-55 to +125
ERJ1TRQ (2512)			0.22 to 0.91 (E24)		
			1.0 to 9.1 (E24)	±100	

<High power (double-sided resistive elements structure) type>

Type (inch size)	Power Rating at 70 °C (W)	Resistance Tolerance (%)	Resistance ⁽¹⁾ Range (Ω)	T.C.R. (×10 ⁻⁶ /°C)	Category Temperature Range (°C)
ERJ2BW (0402)	0.25	±1, ±2, ±5	47 m to 100 m(E24)	±300	-55 to +155
ERJ3BW (0603)	0.25	±1, ±2, ±5	20 m to 100 m(E24)	R<39m Ω : ±250 R≥39m Ω : ±150	-55 to +155
ERJ6BW (0805)	0.5	±1, ±2, ±5	10 m to 100 m(E24)	R<15m Ω : ±300 R≥15m Ω : ±200	-55 to +155
ERJ8BW (1206)	1	±1, ±2, ±5	10 m to 100 m(E24)	10 mΩ ≤ R < 20 mΩ : ±200 20 mΩ ≤ R < 47 mΩ : ±150 47 mΩ ≤ R ≤ 100 mΩ : ±100	-55 to +155
ERJ8CW (1206)	1	±1, ±2, ±5	10 m to 50 m(E24)	±50	-55 to +125

(1) Please contact us when resistors of irregular series are needed.

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

■ Ratings

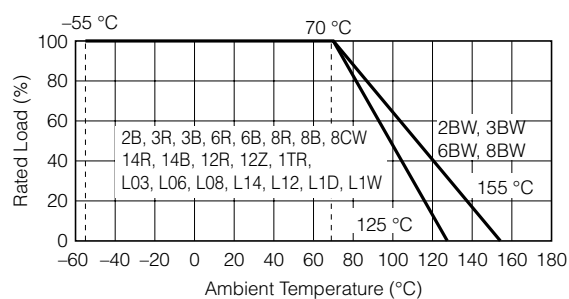
<Low TCR type>

Type (inch size)	Power Rating at 70 °C (W)	Resistance Tolerance (%)	Resistance ⁽¹⁾ Range (Ω)	T.C.R. (×10 ⁻⁶ /°C)	Category Temperature Range (°C)
ERJL03 (0603)	0.2	±1, ±5	47 m to 100 m	±200	-55 to +125
ERJL06 (0805)	0.25	±1, ±5	47 m to 100 m	±100	-55 to +125
ERJL08 (1206)	0.33	±1, ±5	47 m to 100 m	±100	-55 to +125
ERJL14 (1210)	0.33	±1, ±5	20 m to 100 m	R<47 mΩ : ±300 R≥47 mΩ : ±100	-55 to +125
ERJL12 (1812)	0.5	±1, ±5	20 m to 100 m		-55 to +125
ERJL1D (2010)	0.5	±1, ±5	40 m to 100 m		-55 to +125
ERJL1W (2512)	1	±1, ±5	40 m to 100 m		-55 to +125

(1) Standard R.V. : 20 mΩ, 22 mΩ, 33 mΩ, 39 mΩ, 47 mΩ, 50 mΩ, 100 mΩ, Custom R.V. : Each 1 mΩ within upper range.

Power Derating Curve

For resistors operated in ambient temperatures above 70 °C, power rating shall be derated in accordance with the figure on the right.





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.