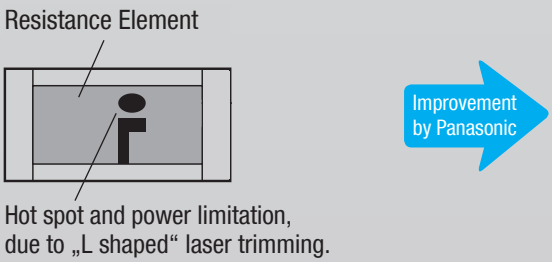
Panasonic

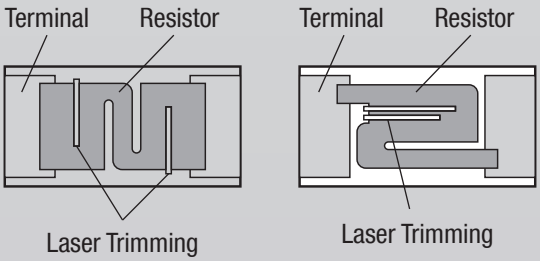
HIGH POWER SMD RESISTORS

DOWNSIZING AND COMPONENT-SAVING

STANDARD TYPE



ANTI-SURGE TYPE STRUCTURE



1	2	3	4	5	6	7	8	9	10	11	12	Digit
E	R	J	P	0	6	D	1	0	0	2	V	**Part Number**

Product Code

Thick Film Chip Resistors

Size, Power, Rating

Type	Inch	Power R.
PA2	0402	0,20W
P03	0603	0.20W
PA3	0603	0.25W
P06	0805	0.50W
P08	1206	0.66W
P14	1210	0.50W

Resistance Tolerance

Code	Tolerance
D	±0.5%
F	±1.0%
J	±5.0%

Resistance Value

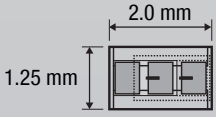
The first two or three digits are significant figures of resistance and the third or fourth one denotes number of zeros folowing.
Three digit type (±5%)
Four digit type (±1.0%, ±0.5%)
Example: 222 -> 2.2kΩ, 1002 -> 10kΩ

Packaging Methods

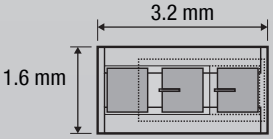
Code	Packaging	Type
X	Punched Carrier Taping 2 mm pitch, 10,000 pcs.	ERJPA2
V	Punched Carrier Taping 4mm pitch, 5,000 pcs.	ERJP03 ERJPA3 ERJP06 ERJP08
U	Embossed Carrier Taping 4mm pitch, 5,000 pcs.	ERJP14

WIDE TERMINAL TYPE STRUCTURE

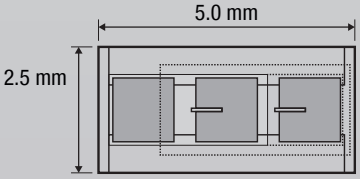
> ERJB3 Series (Size 0508)



> ERJB2 Series (Size 0612)



> ERJB1 Series (Size 1020)



1	2	3	4	5	6	7	8	9	10	11	Digit
E	R	J	A	1	A	J	1	0	2	U	**Part Number**

Product Code

Thick Film Chip Resistors

Size, Power, Rating

Type	Inch	Power R.
A1	2512	1.33W
B1	2010	1W (2W; R≤10Ω)
B2	1206	0.75W (1W; R≤10Ω)
B3	0805	0.33W (0.5W; R≤10Ω)

Resistance Value Region

A	10Ω	≤ R
B	0.22Ω	≤ R < 10Ω
C	0.01Ω	≤ R < 0.22Ω
D	0.005Ω	≤ R < 0.01Ω

Resistance Tolerance

F	±1.0%
G	±2.0%
J	±5.0%

Resistance Value

Shown by three digits or letters.
Only when it is possible, shown by four digits or letters.
Ex.: 102: 1.0kΩ R01: 0.01 Ω = 10mΩ
4R7: 4.7Ω R015: 0.015Ω = 15mΩ

Packaging Methods

Code	Packaging	Type
V	Punched Carrier Taping 4mm pitch, 5,000 pcs.	ERJB2 ERJB3
U	Embossed Carrier Taping 4mm pitch, 5,000 pcs.	ERJB1
	Embossed Carrier Taping 4mm pitch, 4,000 pcs.	ERJA1

FOR AUTOMOTIVE & HIGH RELIABILITY APPLICATIONS

- > Corresponding to AEC-Q200
- > High Power in small package
- > High Performance
- > Cost Saving
- > High Reliability
- > Wide Resistance Value
- > Excellent TCR
- > Down Sizing
- > Stability over life time
- > MELF Replacement

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Panasonic

HIGH POWER SMD RESISTORS

DOWNSIZING AND COMPONENT-SAVING

DOWNSIZING AND COMPONENT-SAVING MATRIX

Power \ Size	0402 (1005mm)	0603 (1608mm)	0805 / 0508	1206/0612 (3216/1632mm)	1210 (3225mm)	2010/1020 (5025/2550mm)
2W						ERJB1
1W				ERJB2		
0.66W (2/3W)				ERJP08		
0.5W (1/2W)			ERJB3 / ERJP06		ERJP14	ERJ12 (0.75W)
0.33W (1/3W)					ERJ14	
0.25W (1/4W)		ERJPA3		ERJ8ENF		
0.2W (1/5W)	ERJPA2					
0.125W (1/8W)			ERJ6ENF			
0.1W (1/10W)		ERJ3EKF				
0.063W (1/16W)	ERJ2RKF					

Higher Power in Smaller Size

DOWNSIZING SOLUTION

> Reducing PCB Area

> Reducing Large Size Resistor (1206) by high power series

1W	0612 Wide-terminal (B2)
0.66W	1206 High Power (P08 up-grade enable)
0.5W	0508 Wide-terminal (B3)
	0805 High Power (P06 up-grade enable)
0.25W	0603 High Power (PA3)
0.20W	0402 High Power (PA2)

HIGH POWER TYPE

(ERJP03, P06, P08, P14)

NEW HIGH POWER TYPE

(ERJPA2, PA3)

WIDE TERMINAL TYPE

(ERJB3, B2, B1, A1)

STANDARD TYPE

(ERJ2, 3, 6, 8, 14, 12, 1T)

rev. 201603