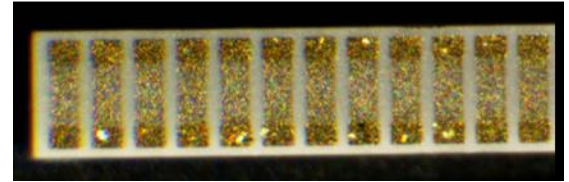


# Standard Resistor Array – PS, PB, PI Series

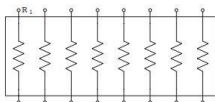
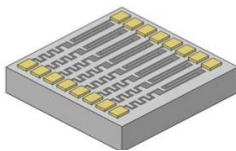
## Product Features

- Configured in 3 to 12 resistor combinations with all resistors at the same value and tolerance.
- Custom arrays can be designed to engineer’s specifications.
- Can be used in Non-Magnetic Applications

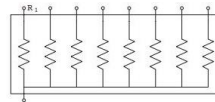
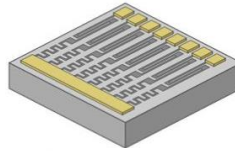


## Product Specifications

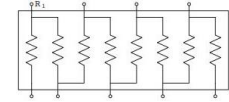
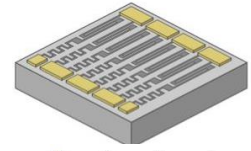
<b>Resistance Range</b>	5Ω to 100 kΩ per resistor (Alumina) 5Ω to 1 MΩ per resistor (Silicon)
<b>Resistive Material</b>	Tantalum Nitride
<b>Ratio Tolerance</b>	To 0.01% value dependent



Isolated

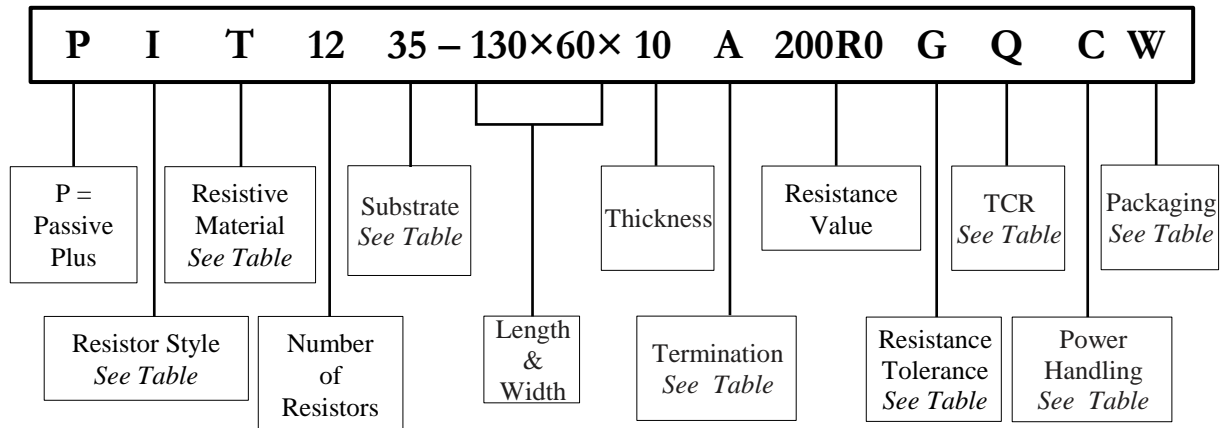


Common



Series

## Part Numbering



## Resistive Style

Code	Style
I	Isolated Array
B	Common-Bus Array
S	Series Array

## Resistive Materials

Material	Code	Passivation	Sheet Resistivity (Ω/ Sq)	Abs. Tolerance	Ratio Tolerance
Tantalum Nitride (TaN)	T	Self Passivating Ta <sub>2</sub> O <sub>5</sub>	5 to 270	From ±0.01%	From ±0.01%



# Standard Resistor Array – PS, PB, PI Series

## Substrate Materials

Recommended Substrates	Code
99.6% Alumina (Al <sub>2</sub> O <sub>3</sub> )	35
Silicon (SiO <sub>2</sub> )	20

## Terminations

Metallization		Code
Top Side	Bottom Side	
Pd / Au	—	A
Pd / Au	Ta/Pd/Au	D
Pd / Au	Au Sputtered	K

## Resistance Tolerance Codes

Tolerance	B	D	F	G	H	J	K	L	M	Q	S
Code	± 0.1%	± 0.5%	± 1%	± 2%	± 3%	± 5%	± 10%	± 15%	± 20%	± 0.05%	± 0.01%

## Temperature Coefficient of Resistance

Material	±150 ppm/°C	±100 ppm/°C
Tantalum Nitride (TaN)	Q	V
	Standard	Yes

## Power Handling

Resistors	3	4	5	6	7	8	9	10	11	12
Length (mils)	40 (0.04")	50 (0.05")	60 (0.06")	70 (0.07")	80 (0.08")	90 (0.09")	100 (0.10")	110 (0.11")	120 (0.12")	130 (0.13")
Width	60 mils (0.06") standard									
Thickness	10 mils (0.01") standard									
Power	50 mW/ Resistor standard									

## Packaging

Code	Style
W	Waffle Pack (Standard)
G	Gel Pack

All parts are supplied in waffle packs. Other packaging may be available. Contact PPI for additional packaging options.

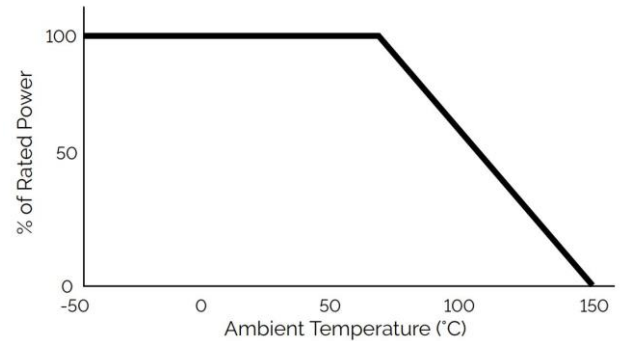


# Standard Resistor Array – PS, PB, PI Series

## General Properties

Operating Temperature	-55°C to +150°C
Storage Temperature	-65°C to +150°C
Operating Frequency	DC to 500 MHz
Voltage Rating	100V maximum
Power Derating (See Chart at Right)	Full power up to 70°C Derated linearly to zero power at 150°C

Power Derating Curve



## Testing

Testing Performed	Specification / Standard
Visual Inspection	MIL-PRF-55342 MIL-STD-883
Mechanical Inspection	MIL-PRF-55342
DC Resistance	MIL-PRF-55342 MIL-STD-202
Resistance Temperature Characteristics (TCR)	MIL-PRF-55342
Short Time Overload	MIL-PRF-55342
High Temperature Exposure	MIL-PRF-55342
Thermal Shock	MIL-PRF-55342 MIL-STD-202
Resistance to Bonding Exposure	MIL-PRF-55342
Wire Bonding Integrity	MIL-PRF-55342
Life Test	MIL-PRF-55342 MIL-STD-202

## Performance Specifications

Higher power ratings, additional sizes, and custom resistors available. Please contact sales@passiveplus.com.

## Packaging

ESD waffle packs are standard. Film rings and gel pack packaging are available upon request.