

# High Power Thin Film Chip Terminator

## ■ PCS Series、 HPT Series

### Features

- Small high power chip terminator with aluminum nitride and aluminum oxide substrate
- Efficient heat dissipation provides high power, anti-surge, overload protection.
- Wrap around terminals provide easy and reliable soldering.
- Thin film does not have any innate stress. Therefore, repeated power cycling does not fatigue the element and cause no change in impedance.

### Applications

- Wireless base station, wireless communication devices, and high frequency power source



### ◆ Part numbering system

## HPT 3216 - 50 - T1

Series code(PCS, HPT)

Size : 1005,1608,2012,3216,5025  
6432, \*6464, \*9464H

\*HPT series only

Packing quantity:

T=Tape (T1/T5), B=Bulk

Impedance

### ◆ Electrical Specification

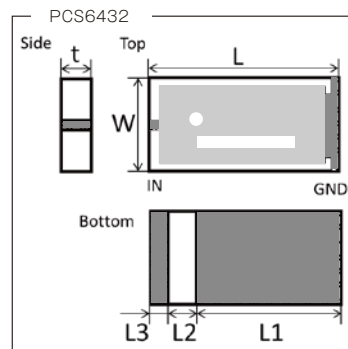
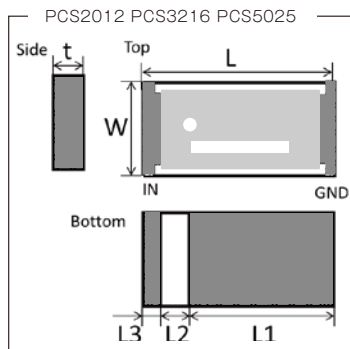
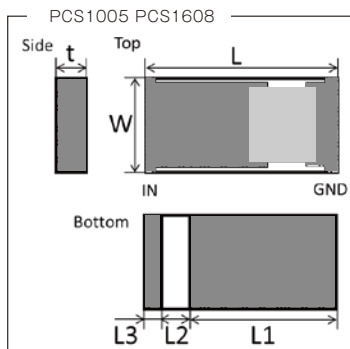
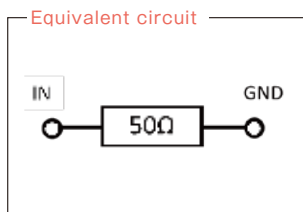
#### PCS series (Alumina substrate)

Type	PCS1005	PCS1608	PCS2012	PCS3216	PCS5025	PCS6432	
Rated Power	200mW	500mW	1W	2W	5W	10W	
VSWR	DC ~ 3GHz	1.2	1.2	1.2	1.2	1.3	1.2
	3.1~5GHz	1.2	1.2	1.3	1.3	1.4	1.5
	5.1~7.5GHz	1.3	1.3	1.3	1.4	1.5	—
	7.6~10GHz	1.3	1.3	1.4	1.5	—	—
	10.1~12.5GHz	1.4	1.4	1.5	—	—	—
	12.6~15GHz	1.5	1.5	—	—	—	—
Operating temperature	-55°C~ +125°C						
Rated operating temperature	+70°C						
Packaging quantity	100pcs/bag (B) 1000pcs/reel (T1) 5000pcs/reel (T5)						

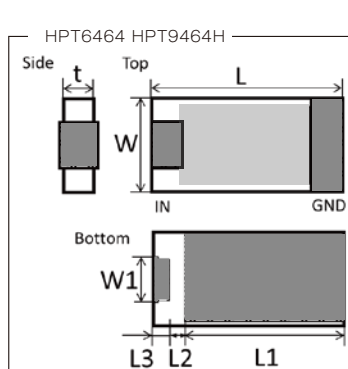
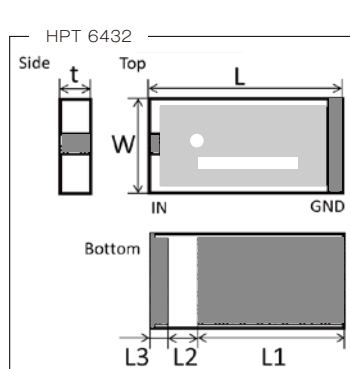
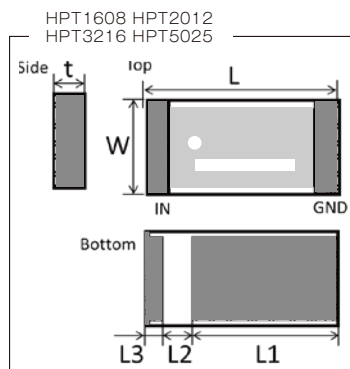
#### HPT series (ALN substrate)

Type	HPT1608	HPT2012	HPT3216	HPT5025	HPT6432	HPT6464	HPT9464H
Rated Power	2.5W	5W	10W	20W	30W	60W	100W
VSWR	DC ~ 3GHz	1.2	1.2	1.2	1.3	1.3	1.3
	3.1~5GHz	1.2	1.3	1.3	1.5	1.5	—
	5.1~7.5GHz	1.3	1.3	1.4	—	—	—
	7.6~10GHz	1.3	1.4	1.5	—	—	—
	10.1~12.5GHz	1.4	1.5	—	—	—	—
	12.6~15GHz	1.5	—	—	—	—	—
Operating temperature	-40°C~ +155°C						
Rated operating temperature	+100°C at Terminal						
Packaging quantity	100pcs/bag (B) 1000pcs/reel (T1) 5000pcs/reel (T5)						100pcs/bag (B) 1000pcs/reel (T1)

◆ Dimension, Equivalent Circuit and pin arrangement



Type	Size (inch)	L	W	t	L1	L2	L3
PCS1005	0402	1.00±0.10	0.50±0.10	0.30±0.10	0.65±0.10	0.20±0.10	0.15±0.10
PCS1608	0603	1.60±0.15	0.80±0.15	0.40±0.10	1.10±0.15	0.30±0.15	0.20±0.15
PCS2012	0805	2.00±0.15	1.25±0.15	0.40±0.10	1.50±0.15	0.30±0.15	0.20±0.15
PCS3216	1206	3.20±0.20	1.60±0.20	0.40±0.10	2.70±0.20	0.30±0.15	0.20±0.15
PCS5025	2010	5.00±0.20	2.50±0.20	0.40±0.10	4.30±0.20	0.40±0.15	0.30±0.15
PCS6432	2512	6.40±0.20	3.20±0.20	0.40±0.10	5.70±0.20	0.40±0.15	0.30±0.15



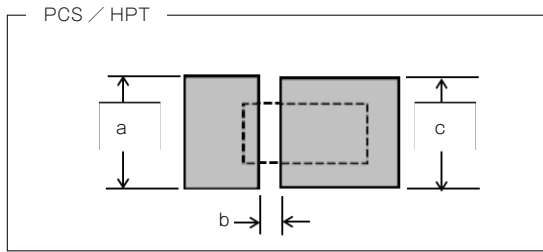
Type	Size (inch)	L	W	t	L1	L2	L3	W1
HPT1608	0603	1.60±0.15	0.80±0.15	0.40±0.10	1.10±0.15	0.30±0.15	0.20±0.15	—
HPT2012	0805	2.00±0.15	1.25±0.15	0.40±0.10	1.50±0.15	0.30±0.15	0.20±0.15	—
HPT3216	1206	3.20±0.20	1.60±0.20	0.40±0.10	2.70±0.20	0.30±0.15	0.20±0.15	—
HPT5025	2010	5.00±0.20	2.50±0.20	0.65±0.10	3.60±0.20	0.90±0.20	0.50±0.15	—
HPT6432	2512	6.40±0.20	3.20±0.20	0.65±0.10	5.50±0.20	0.70±0.15	0.20±0.15	—
HPT6464	2525	6.30±0.20	6.30±0.20	0.65±0.10	4.90±0.20	0.65±0.15	0.75±0.15	3.05±0.20
HPT9464H	3725	9.40±0.20	6.30±0.20	0.65±0.10	7.10±0.20	1.15±0.15	1.15±0.15	3.00±0.20

(unit : mm)

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### ◆ Recommended land patterns (soldering footprints)



Type	a	b	c
PCS1005	0.70	0.20	0.70
PCS1608	1.20	0.30	1.20
PCS2012	1.20	0.45	1.60
PCS3216	2.00	0.45	2.00
PCS5025	2.90	0.55	2.90
PCS6432	3.60	0.55	3.60

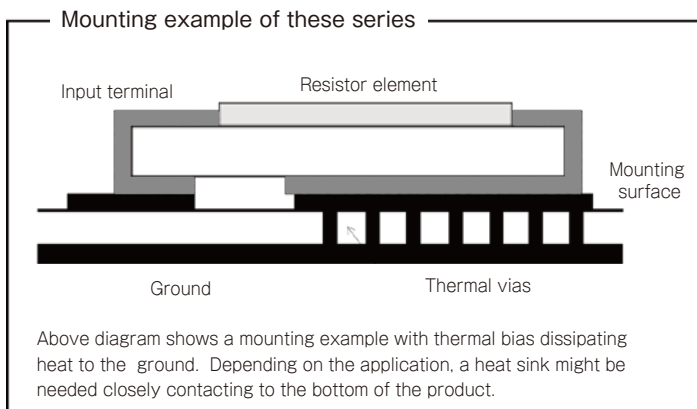
(unit : mm)

Type	a	b	c
HPT1608	1.20	0.40	1.20
HPT2012	1.60	0.40	1.50
HPT3216	2.00	0.40	2.00
HPT5025	2.90	0.90	2.90
HPT6432	3.60	0.70	3.60
HPT6464	3.30	1.15	6.80
HPT9464H	3.30	1.15	6.80

(unit : mm)

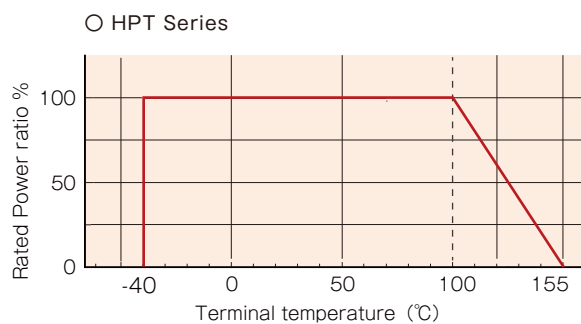
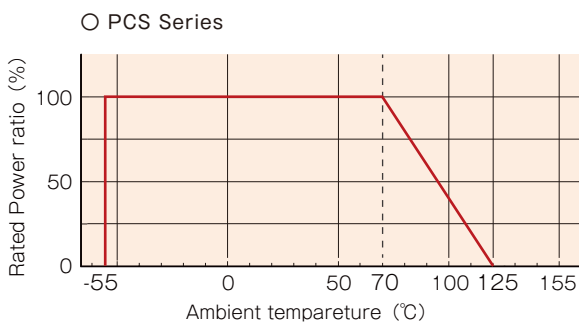
### ◆ Mounting example

Pay special care to heat dissipation when this product is used at maximum rated power.



High frequency surface mount components

### ◆ Derating Curve



◆ High frequency characteristics

