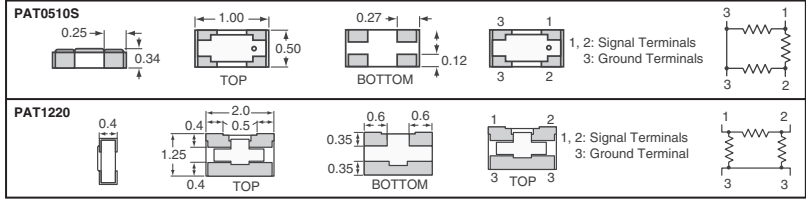


**Thin Film Fixed SMD Attenuators  
PAT0510S and PAT1220 Series**

**Specifications:** • Attenuation: 0 – 10dB • VSWR: 1.3 or less • Frequency Range: DC – 10GHz • Operating Temperature: -55°C – 125°C • Impedance: 50Ω • Rated Ambient Temperature: 70°

**Materials:** • Resistor: Nichrome Thin Film • Protection Film: Epoxy Resin • Substrate: Alumina • Marking: White Ink • Terminals: Sn Plate (Sn is free from lead)

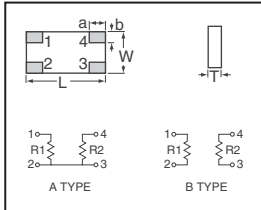


Type	Attenuation Value (dB)	Attenuation Tolerance	Rated Input Power	Impedance Tolerance	Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape and Reel		Susumu Part No.
						1	10	50		Qty.	Pricing	
PAT0510S	0	±0.3dB	32mW	±20% @ DC	PAT05S0CT-ND	.34	1.83	5.25	PAT05S0TR-ND	10,000	32.67/M	PAT0510S-C-0DB-T10
	1				PAT05S1CT-ND	.34	1.83	5.25	PAT05S1TR-ND	10,000	32.67/M	PAT0510S-C-1DB-T10
	2				PAT05S2CT-ND	.34	1.83	5.25	PAT05S2TR-ND	10,000	32.67/M	PAT0510S-C-2DB-T10
	3				PAT05S3CT-ND	.34	1.83	5.25	PAT05S3TR-ND	10,000	32.67/M	PAT0510S-C-3DB-T10
	4	±0.5dB	32mW	±20% @ DC	PAT05S4CT-ND	.34	1.83	5.25	PAT05S4TR-ND	10,000	32.67/M	PAT0510S-C-4DB-T10
	5				PAT05S5CT-ND	.34	1.83	5.25	PAT05S5TR-ND	10,000	32.67/M	PAT0510S-C-5DB-T10
	6				PAT05S6CT-ND	.34	1.83	5.25	PAT05S6TR-ND	10,000	32.67/M	PAT0510S-C-6DB-T10
	7				PAT05S7CT-ND	.34	1.83	5.25	PAT05S7TR-ND	10,000	32.67/M	PAT0510S-C-7DB-T10
	8	±0.7dB	32mW	±20% @ DC	PAT05S8CT-ND	.34	1.83	5.25	PAT05S8TR-ND	10,000	32.67/M	PAT0510S-C-8DB-T10
	9				PAT05S9CT-ND	.34	1.83	5.25	PAT05S9TR-ND	10,000	32.67/M	PAT0510S-C-9DB-T10
10	PAT05S10CT-ND				.34	1.83	5.25	PAT05S10TR-ND	10,000	32.67/M	PAT0510S-C-10DB-T10	
PAT1220	0	±0.3dB	100mW	±7% @ DC	PAT120CT-ND	.94	5.05	14.51	PAT120TR-ND	5,000	104.55/M	PAT1220-C-0DB-T5
	1				PAT121CT-ND	.94	5.05	14.51	PAT121TR-ND	5,000	104.55/M	PAT1220-C-1DB-T5
	2				PAT122CT-ND	.94	5.05	14.51	PAT122TR-ND	5,000	104.55/M	PAT1220-C-2DB-T5
	3				PAT123CT-ND	.94	5.05	14.51	PAT123TR-ND	5,000	104.55/M	PAT1220-C-3DB-T5
	4				PAT124CT-ND	.94	5.05	14.51	PAT124TR-ND	5,000	104.55/M	PAT1220-C-4DB-T5
	5				PAT125CT-ND	.94	5.05	14.51	PAT125TR-ND	5,000	104.55/M	PAT1220-C-5DB-T5
	6				PAT126CT-ND	.94	5.05	14.51	PAT126TR-ND	5,000	104.55/M	PAT1220-C-6DB-T5
	7				PAT127CT-ND	.94	5.05	14.51	PAT127TR-ND	5,000	104.55/M	PAT1220-C-7DB-T5
	8				PAT128CT-ND	.94	5.05	14.51	PAT128TR-ND	5,000	104.55/M	PAT1220-C-8DB-T5
	9				PAT129CT-ND	.94	5.05	14.51	PAT129TR-ND	5,000	104.55/M	PAT1220-C-9DB-T5
	10				PAT1210CT-ND	.94	5.05	14.51	PAT1210TR-ND	5,000	104.55/M	PAT1220-C-10DB-T5

**G**

**RM Series Metal Film Chip Resistor Networks  
0805, 1206, .1% Voltage Divider or Isolated Configurations**

**Specifications:**  
• Resistance Tolerance: ±0.1%  
• Resistance Tracking Tolerance: ±0.05%  
• TCR ppm/°C: ±25ppm  
• PCR Tracking ppm/°C: ±5ppm



Dimension (mm)	RM2012 (0805)	RM3216 (1206)
L	2.0 ±0.2	3.2 ±0.2
W	1.25 ±0.2	1.6 ±0.2
T	0.4 ±0.1	0.4 ±0.1
a	0.6 ±0.2	1.0 ±0.2
b	0.35 ±0.2	0.4 ±0.2

Resistor Value (Ratio) Chart RM2012 and RM3216

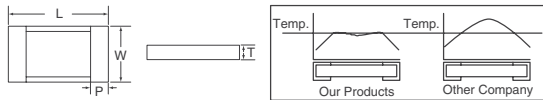
Value (Ratio)	Value (Ratio)	Value (Ratio)	Value (Ratio)	Value (Ratio)
1.0K/1.0K (1:1)	1.0K/9.0K (1:9)	2.0K/10K (1:5)	5.0K/100K (1:20)	10K/60K (1:6)
1.0K/2.0K (1:2)	1.0K/10K (1:10)	2.0K/20K (1:10)	10K/10K (1:1)	10K/90K (1:9)
1.0K/3.0K (1:3)	1.0K/20K (1:20)	2.0K/40K (1:20)	10K/20K (1:2)	10K/100K (1:10)
1.0K/4.0K (1:4)	1.0K/25K (1:25)	2.0K/50K (1:25)	10K/30K (1:3)	100K/100K (1:1)
1.0K/5.0K (1:5)	1.0K/50K (1:50)	2.0K/100K (1:50)	10K/40K (1:4)	100K/200K (1:2)‡
1.0K/6.0K (1:6)	1.0K/100K (1:100)	2.0K/200K (1:100)‡	10K/50K (1:5)	100K/300K (1:3)‡

‡ Available only in RM3216 Series

Description	Circuit Type	Element Power (W)	Package Power (W)	Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	T&R Pricing 1,000	Susumu Part No.
					5	10	100			
0.1%, 0805	(A) Voltage Divider	.05	.10	RM20A(Value)PCT-ND	5.81	10.16	79.86	RM20A(Value)PTR-ND	580.80	RM2012A-(Value)-PBVW10
0.1%, 0805	(B) Isolated	.05	.10	RM20B(Value)PCT-ND	5.81	10.16	79.86	RM20B(Value)PTR-ND	580.80	RM2012B-(Value)-PBVW10
0.1%, 1206	(A) Voltage Divider	.063	.125	RM32A(Value)PCT-ND	5.81	10.16	79.86	RM32A(Value)PTR-ND	580.80	RM3216A-(Value)-PBVW10
0.1%, 1206	(B) Isolated	.063	.125	RM32B(Value)PCT-ND	5.81	10.16	79.86	RM32B(Value)PTR-ND	580.80	RM3216B-(Value)-PBVW10

**0402 / 0603 / 0805 SMD 1% High Power Thin Film Chip Resistors  
RP Series — 1/3, 1/5, 1/6 Watt**

Susumu's RP series current sensing resistors provide excellent heat dissipation which allows higher power handling in smaller package sizes. Their patented structure will not create "hot spots" and evenly distribute heat across the total surface area of the resistor.  
**Operating Temperature:** -40°C – 125°C  
**Maximum Operating Voltage:** √P×R



Resistor Values									
.10	.22	.47	1.0	2.2	4.7	10	22	47	100
.12	.27	.56	1.2	2.7	5.6	12	27	56	
.15	.33	.68	1.5	3.3	6.8	15	33	68	
.18	.39	.82	1.8	3.9	8.2	18	39	82	

Description	Value Range (Ω)	TCR ppm/°C	Resistance Tolerance	Dimensions (mm)				Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape and Reel		Susumu Part No.
				L	W	P	T		10	50	200		Qty.	Pricing	
1%, 0402, 1/6W	.10 – 47	0 – 200	±1%	1.00	0.50	0.20	0.35	RP10S(Value)FCT-ND	6.99	18.80	43.20	RP10S(Value)FTR-ND	10,000	76.67/M	RP1005S-xxx-F
1%, 0603, 1/5W	.10 – 68	0 – 200	±1%	1.60	0.80	0.30	0.40	RP16S(Value)FCT-ND	4.99	13.43	30.86	RP16S(Value)FTR-ND	5,000	56.78/M	RP1608S-xxx-F
1%, 0805, 1/3W	.10 – 10	0 – 200	±1%	2.00	1.25	0.40	0.40	RP20T(Value)FCT-ND	3.89	10.48	24.07	RP20T(Value)FTR-ND	5,000	43.20/M	RP2012T-xxx-F
1%, 0805, 1/3W	12 – 100	0 – 200	±1%	2.00	1.25	0.40	0.40	RP20S(Value)FCT-ND	3.89	10.48	24.07	RP20S(Value)FTR-ND	5,000	43.20/M	RP2012S-xxx-F

**1% SMD Resistors Digi-Key® Assortment Kits**

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RP1608SF-1-KIT-ND 10 each of values .10Ω – 68Ω ..... 36.26

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