

MICROWAVE COMPONENTS

DC to
2.0GHz

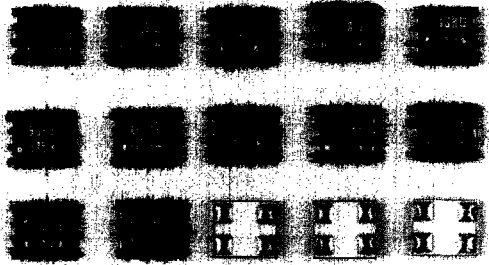
Surface Mount Attenuators

CL 354

◆ GENERAL FEATURES

The AT-1400 series are compact, lightweight SMT attenuators developed using our most advanced miniaturizing and high-matching technology.

Available in 12 types of attenuations: 0 to 10 dB (in 1 dB steps) and 20 dB.



◆ OPERATIONAL ENVIRONMENT

Operating temperature; $-10^{\circ}\text{C}\sim+65^{\circ}\text{C}$

Humidity; 0~95%

◆ TEST ENVIRONMENT

Vibration resistance; 10~55Hz

Total amplitude; 1.5mm 55~2000Hz 98m/s²

Temperature resistance; $-55^{\circ}\text{C}\sim+85^{\circ}\text{C}$

Impulse resistance; 490m/s²

Testing Method per MIL-STD-202

◆ MATERIAL FINISH

Part name	Material	Finish
Resistor	Metal Film	

◆ Model No.

AT-1400

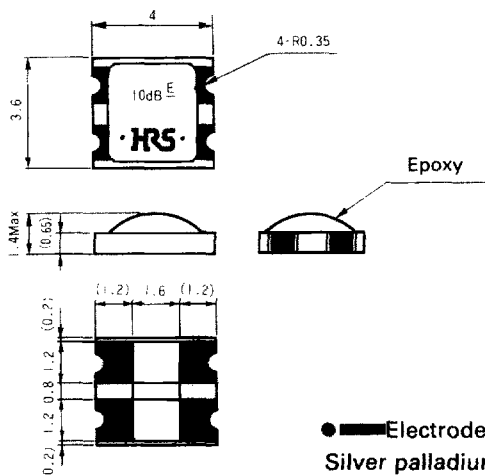
Ex. 01..... 1 dB
06..... 6 dB
00---(0)--- 0 dB(through)

Product classification
(1400 series)

Attenuator symbol

◆ DIMENSIONS

Ex. AT-1410



- Electrode
- Silver palladium (solder-plated)
- HRS side: Signal electrode
- E side: Grounding electrode

MICROWAVE COMPONENTS

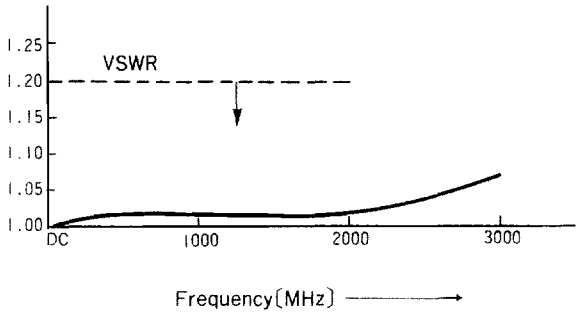
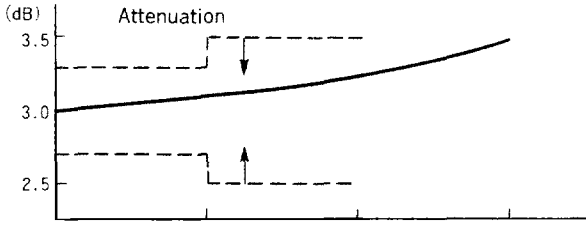
◆ SPECIFICATIONS

Model No.	Attenuation (dB)		VSWR (Max) DC~ 2000MHz	Impedance (Ω)	Power (W)	Surface Temperature at Maximum Load ($^{\circ}$ C Max)	Weight (g)
	DC~ 1000MHz	1000~ 2000MHz					
AT-1400-(0)	$0^{+0.3}_0$	$0^{+0.5}_0$	1.2	50	1	+85	0.1
AT-1401	1 ± 0.3	1 ± 0.5	1.2	50	1	+85	0.1
AT-1402	2 ± 0.3	2 ± 0.5	1.2	50	1	+85	0.1
AT-1403	3 ± 0.3	3 ± 0.5	1.2	50	1	+85	0.1
AT-1404	4 ± 0.3	4 ± 0.5	1.2	50	1	+85	0.1
AT-1405	5 ± 0.3	5 ± 0.5	1.2	50	1	+85	0.1
AT-1406	6 ± 0.3	6 ± 0.5	1.2	50	1	+85	0.1
AT-1407	7 ± 0.3	7 ± 0.5	1.2	50	1	+85	0.1
AT-1408	8 ± 0.3	8 ± 0.5	1.2	50	1	+85	0.1
AT-1409	9 ± 0.3	9 ± 0.5	1.2	50	1	+85	0.1
AT-1410	10 ± 0.3	10 ± 0.5	1.2	50	1	+85	0.1
AT-1420	20 ± 1.5 (DC~600MHz)		1.2 (DC~600MHz)	50	1	+85	0.1

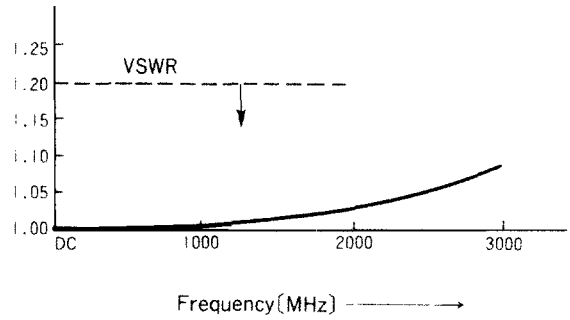
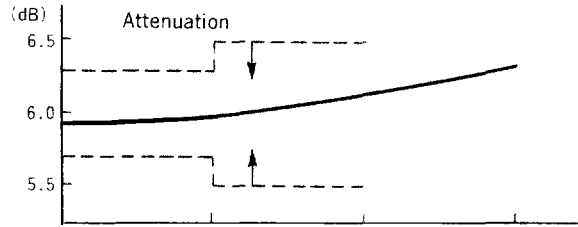
MICROWAVE COMPONENTS

◆ (Typical) DATA

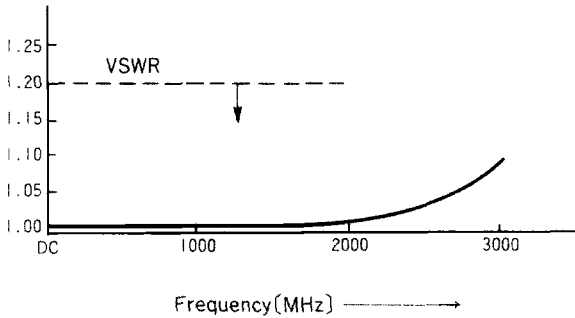
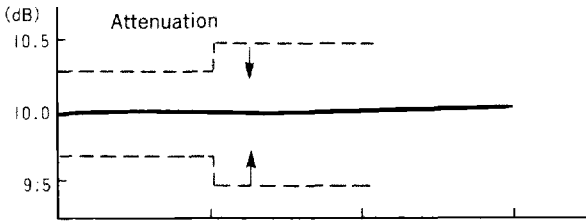
AT-1403



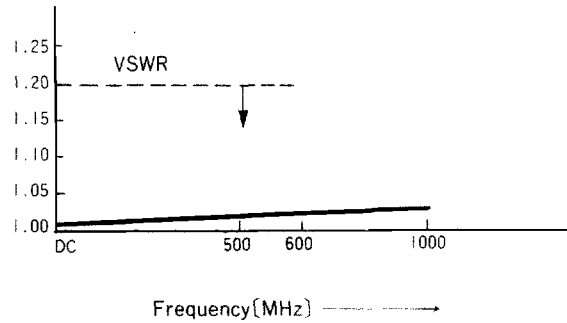
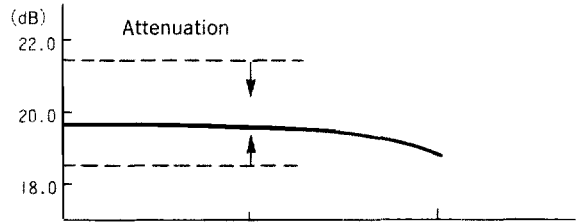
AT-1406



AT-1410



AT-1420

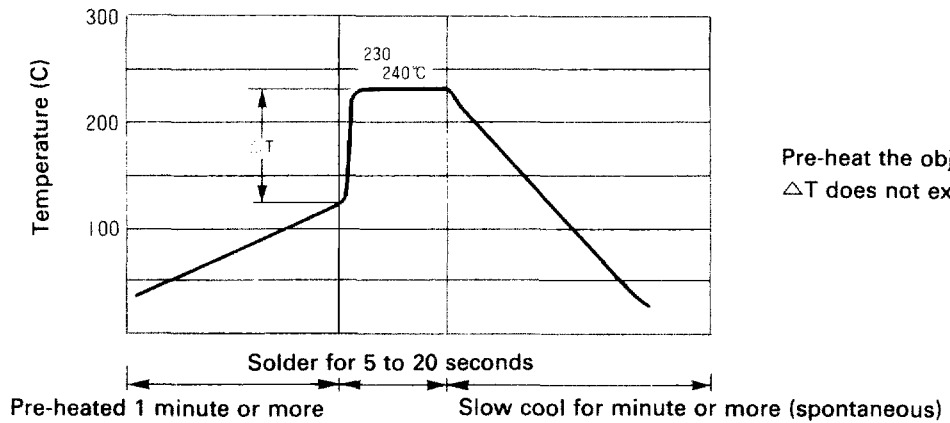


◆ Notes on installation

The AT-1400 series is designed for reflow and manual soldering. Install by following the instructions below.

Recommended soldering

● Reflow soldering (recommended temperatures)



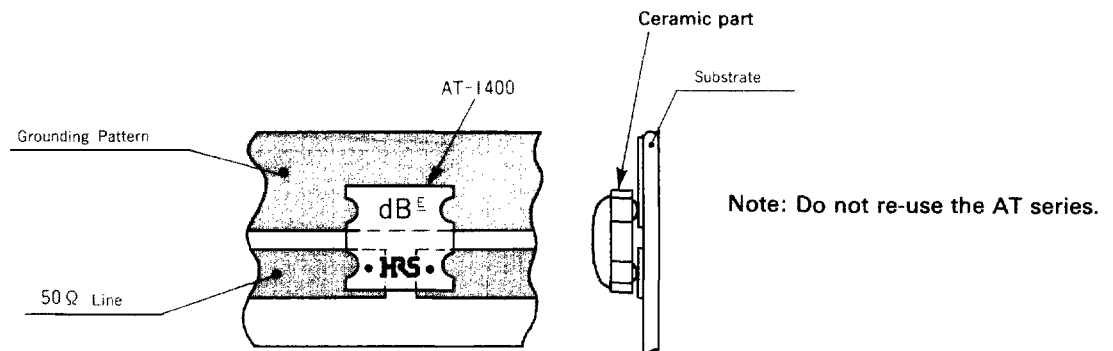
Pre-heat the object so that ΔT does not exceed 120°C.

● Manual soldering (recommended example)

- Soldering iron rating: 30 W or less
- Iron tip temperature: 280°C (maximum)
- Size of iron tip: $\phi 1.2\text{mm}$

* Use care not to touch the ceramic part with the iron tip.
Solder the electrode quickly to prevent it from being gouged.

Example of installation



Dotted lines show the pattern position