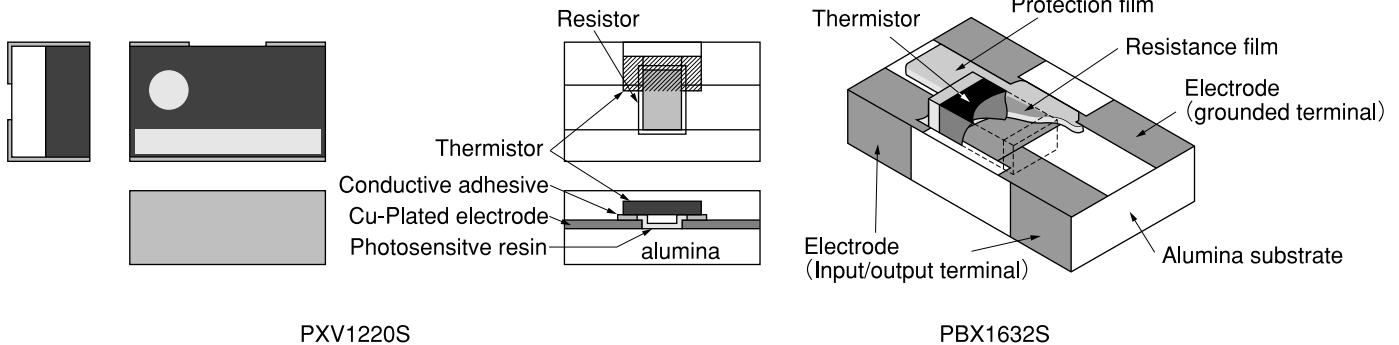


# Variable Chip Attenuators

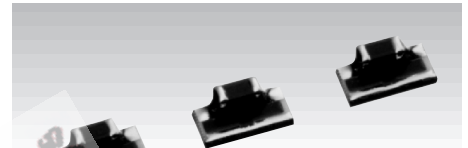
## Structure

Structure :Combine a NTC at the center of a thin film chip attenuator in parallel.

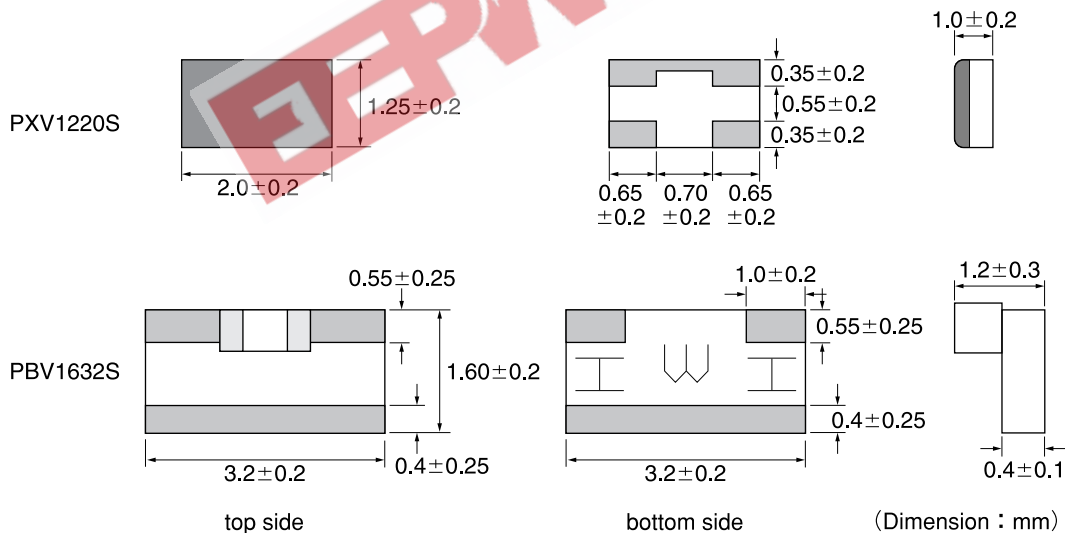


## Features

- Simplify compensation circuit for high frequency amplifier's output gain.
- 8 types of thermal characteristics are available for each of the 11 types of attenuations.
- Excellent temperature and noise characteristics due to thin film resistance elements.
- Operational frequencies are between DC and 3GHz.



## Specifications



Type	PXV1220S(0805)	PBV1632S(1206)
Attenuation	1,2, 3, 4, 5, 6, 7, 8, 9, 10dB	1,2, 3, 4, 5, 6, 7, 8, 9, 10, 16dB
Attenuation Tolerance	$\pm 0.5$ dB (@20°C, no load)	
Impedance	50 ohm	
VSWR	less than 1.3	
Temperature Coefficient of Attenuation	N1~N8 ex : 6dB	N1 0.0119dB/dB*°C N2 0.0088dB/dB*°C N3 0.0062dB/dB*°C N4 0.0047dB/dB*°C N5 0.0041dB/dB*°C N6 0.0035dB/dB*°C N7 0.0026dB/dB*°C N8 0.0019dB/dB*°C
Frequency Range	DC ~3GHz(6GHz)	
Rated Current	63mW	100mW
Operating temperature	$-40^{\circ}\text{C} \sim +100^{\circ}\text{C}$	

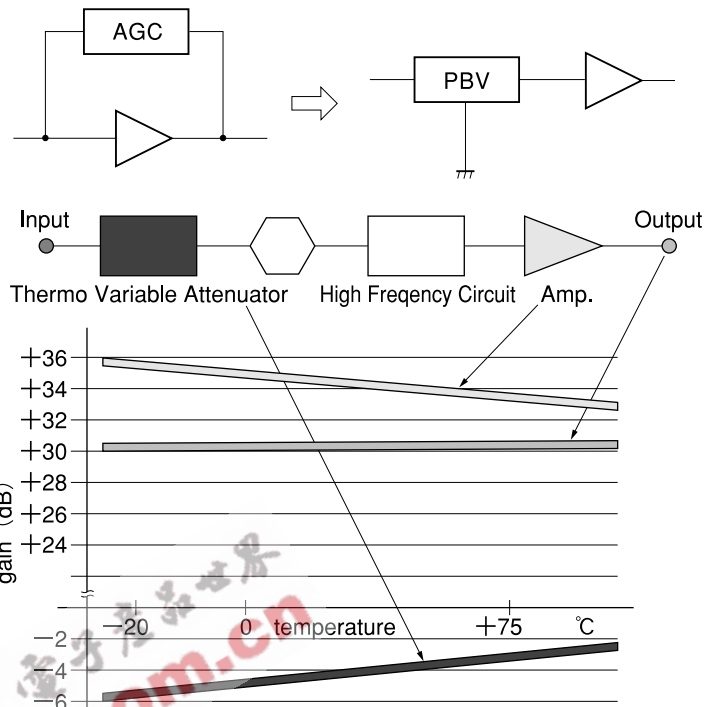
# Application

## Gain temperature compensation

To stabilize output gain of GaAs MOS-FET high power amplifier by replacing conventional temperature compensation circuits and simplify the complicate amplifier design without software program.

## Outline of operation

The thermistor in a thermal sensitive attenuator varies power attenuation by changing the current of thermistor with temperature change. Rise in temperature is accompanied by decrease in power attenuation in this simple SMT chip temperature variable attenuator, and output gains in a GaAs amplifier decrease with rise in temperature. With these two effects combined, a stable output gain could be easily obtained regardless of temperature.



EETW.com.cn