

| Actuator Performance  |                             | Actuator Characteristic                                    |                             |
|---|-----------------------------|--|-----------------------------|
| Resonant Frequency  | 65 Hz ( $\pm 10\%$ )        | Dimensions   | 9.5 x 9.5 x 34 $\pm$ 0,1 mm |
| Bandwidth   | 10 Hz to 7 kHz <sup>1</sup> | Total Mass   | 8,2 $\pm$ 0,1 gr            |
| Acceleration peak-to-peak <sup>2</sup>  | 4 g                         | Moving Mass  | 4,5 $\pm$ 0,1 gr            |
| Consumption RMS <sup>2</sup>  | 40 mA                       | Resistance <sup>3</sup>                                    | 4,7 $\Omega$                |
| <sup>1</sup> 98% of the haptic bandwidth and most of the audio bandwidth                            |                             | Inductance <sup>3</sup>                                    | 120 $\mu$ H                 |
| <sup>2</sup> At the resonant frequency, a test load of 100 g and an operating voltage RMS of 0,71 V |                             | Thermal Resistance   | 30,7 $^{\circ}$ C/W         |
|   |                             | Max. Instant Power <sup>3</sup>                            | 5 W                         |
|   |                             | Max. Continuous Power <sup>3</sup>                         | 2 W                         |
|   |                             | Max. Operating voltage                                     | 12 Vpp                      |
|   |                             | <sup>3</sup> The measurements were done at 20 $^{\circ}$ C |                             |

### Detailed Actuator Performance

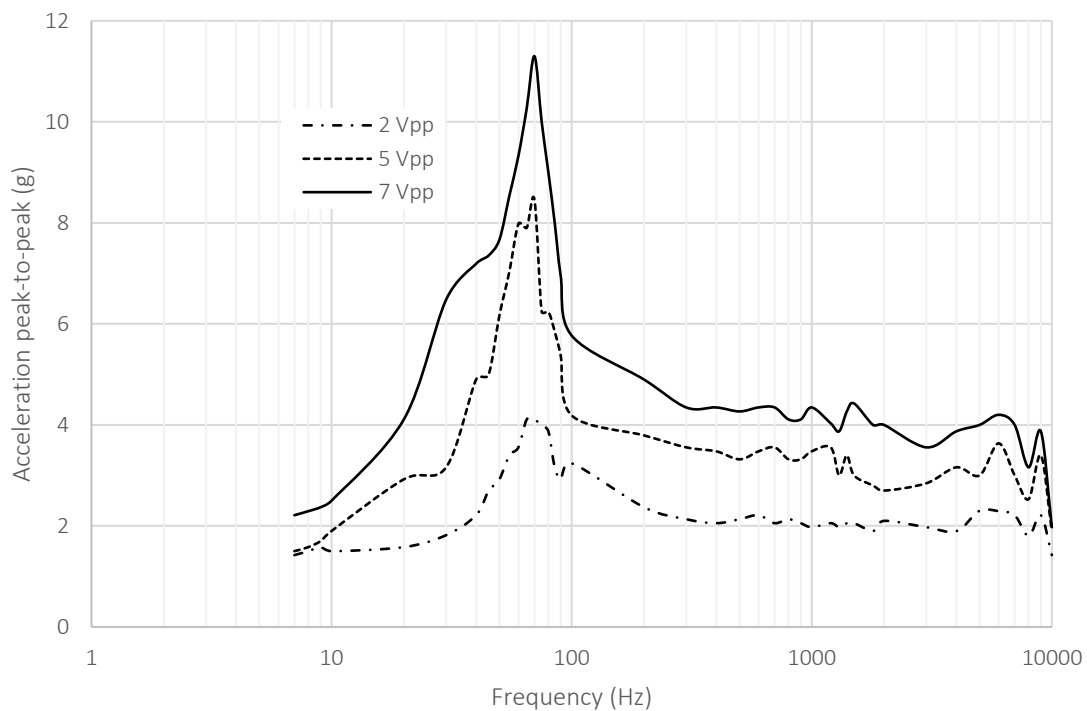
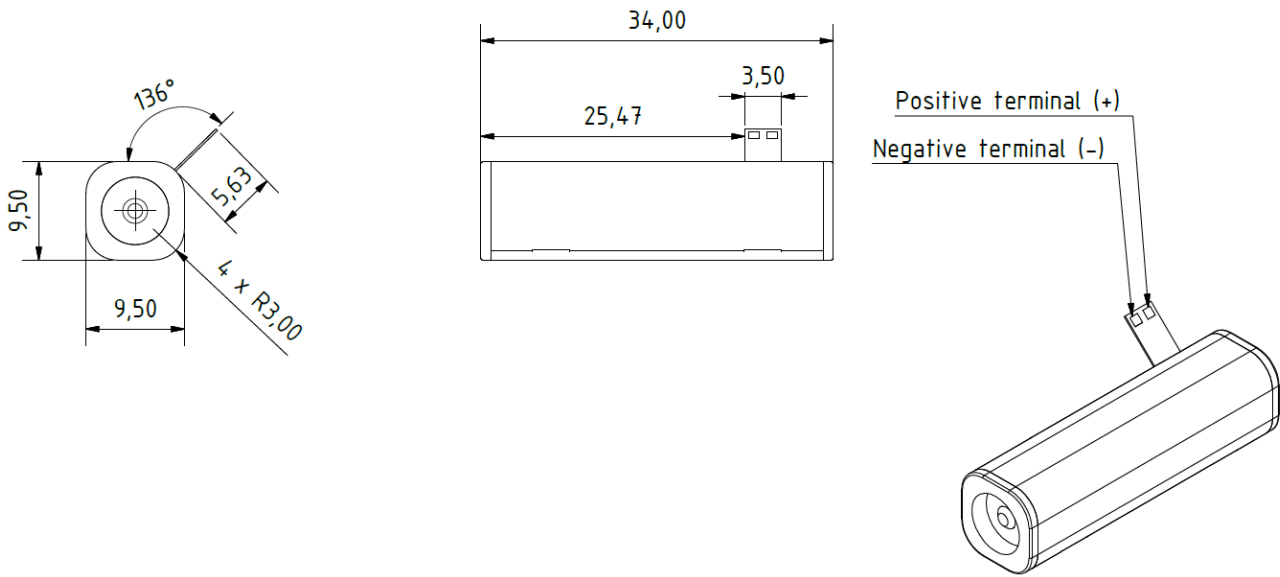


Figure 2 – HFBA9534 Bandwidth for various amplitude command

## HFBA9534 Dimensions



Tolerance:  $\pm 0.1$