Subject: Re: Amplifier classes
Posted by Wayne Parham on Mon, 05 Jun 2017 14:47:31 GMT
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Class A and class AB are suitable for high-fidelity audio, classes B and C are not.

Class A is often called single-ended because it uses one active element to amplify both positive and negative cycles of the waveform.

Class AB is often called push-pull because it uses two active elements, one for each side of the waveform, positive or negative. But there is sufficient overlap so that each active element is operating within its most linear region, limiting distortion during the "hand off," commonly known as crossover distortion.

Class B is also push-pull, but there is no overlap. Each active device operates only during its half-cycle. Efficiency is higher than class AB but distortion is higher too.

Class C is a special-purpose configuration, used mostly in RF circuits. It amplifies only the top portion of the wave. Very high efficiency but also very high distortion. This distortion isn't a problem in some cases, so it is useful because of its efficiency.