

Darlington transistors with built-in temperature compensation diodes for audio amplifier applications

SAPseries

Features

- Built-in temperature compensation diodes and one emitter resistor
- Real time temperature compensation
The temperature compensation diodes are mounted on one chip and placed in the center of the chip to detect temperature rises directly.
- Elimination of the temperature dependency of the idling current
The temperature coefficient of the diodes is optimized to have the idling current stabilized; thus one of the fatal failure modes in conventional Darlington transistors, Thermal Runaway, is avoidable.
- Symmetrical design for the PNP and the NPN pinouts
The new design minimizes the length of the pattern layout, and output distortions are controlled.
- Darlington transistors, temperature compensation diodes and one emitter resistor are incorporated in one package, so labor for parts insertion as well as the parts count is reduced.

Line up

Part Number	P _C (W)	V _{CEO} (V)	I _C (A)	h _{FE}	Emitter resistor (Ω)
SAP15P/SAP15N	150	160	15	5000 to 20000	0.22
SAP10P/SAP10N	100	150	12	5000 to 20000	0.22
SAP08P/SAP08N	80	150	10	5000 to 20000	0.22

