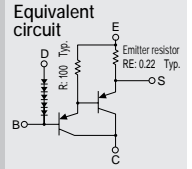


Built-in temperature compensation diodes  
Built-in emitter resistor  
Darlington

# SAP16P



(Complement to type SAP16N)

Application: Audio

■ Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V <sub>CB0</sub>	-160	V
V <sub>CEO</sub>	-160	V
V <sub>EBO</sub>	-5	V
I <sub>C</sub>	-15	A
I <sub>B</sub>	-1	A
P <sub>C</sub>	150(T <sub>C</sub> =25°C)	W
D <sub>I</sub> I <sub>F</sub>	10	mA
T <sub>J</sub>	150	°C
T <sub>stg</sub>	-40 to +150	°C

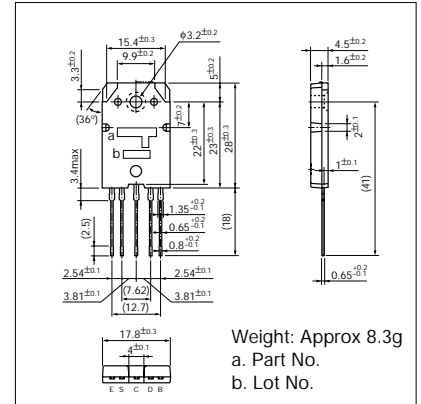
■ Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings			Unit
		min	typ	max	
I <sub>CB0</sub>	V <sub>CB</sub> = -160V			-100	μA
I <sub>EBO</sub>	V <sub>EB</sub> = -5V			-100	μA
V <sub>CEO</sub>	I <sub>C</sub> = -30mA	-160			V
h <sub>FE</sub> *	V <sub>CE</sub> = -4V, I <sub>C</sub> = -10A	5000		20000	
V <sub>CE(sat)</sub>	I <sub>C</sub> = -10A, I <sub>B</sub> = -10mA			-2.0	V
V <sub>BE(sat)</sub>	I <sub>C</sub> = -10A, I <sub>B</sub> = -10mA			-2.5	V
V <sub>BE</sub>	V <sub>CE</sub> = -20V, I <sub>C</sub> = -40mA		1200		mV
D <sub>I</sub> V <sub>F</sub>	I <sub>F</sub> = 2.5mA		1540		mV
RE	I <sub>E</sub> = 1A	0.176	0.22	0.264	Ω
REB		90	100	110	Ω

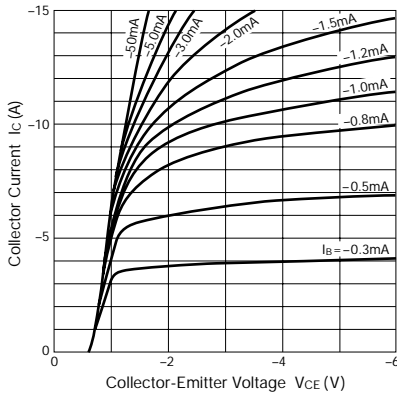
\*h<sub>FE</sub> Rank 0 (5000 to 12000), Y (8000 to 20000)

External Dimensions

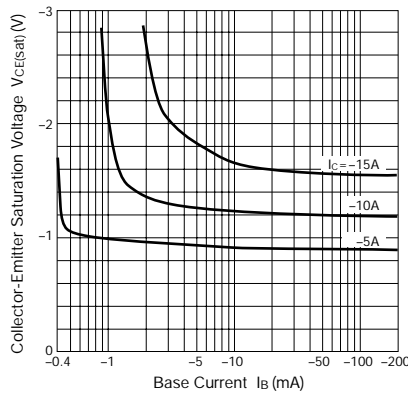
(Unit: mm)



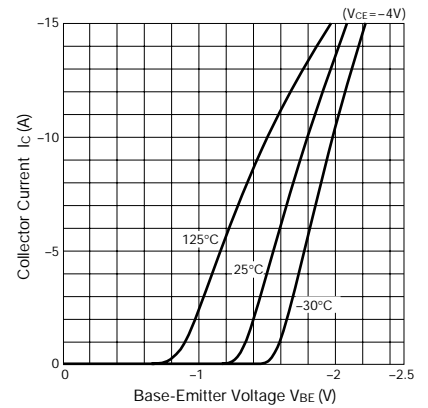
I<sub>C</sub> - V<sub>CE</sub> Characteristics (Typical)



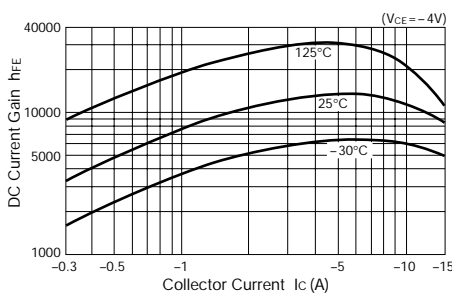
V<sub>CE(sat)</sub> - I<sub>B</sub> Characteristics (Typical)



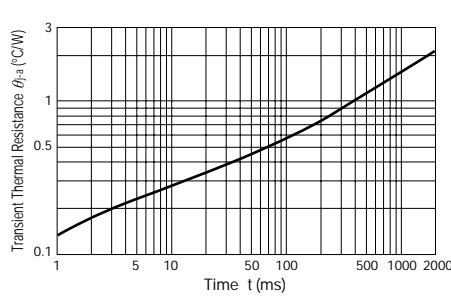
I<sub>C</sub> - V<sub>BE</sub> Temperature Characteristics (Typical)



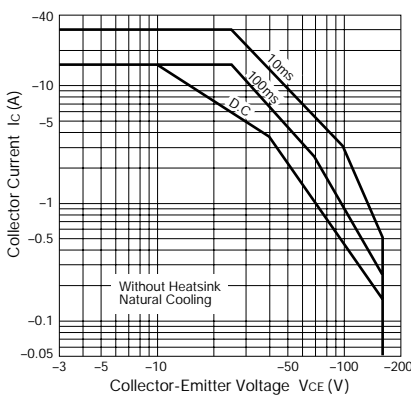
h<sub>FE</sub> - I<sub>C</sub> Characteristics (Typical)



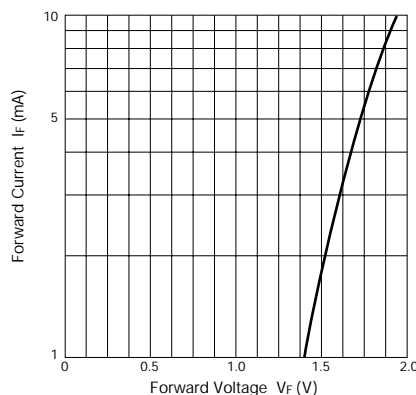
θ<sub>j-a</sub> - t Characteristics



Safe Operating Area (Single Pulse)



D<sub>I</sub> I<sub>F</sub> - V<sub>F</sub> Characteristics (Typical)



P<sub>C</sub> - T<sub>a</sub> Derating

