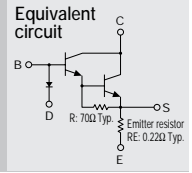


Built-in temperature compensation diodes
Built-in emitter resistor
Darlington

SAP09N



(Complement to type SAP09P)

Application: Audio

■ Absolute maximum ratings (Ta=25°C)

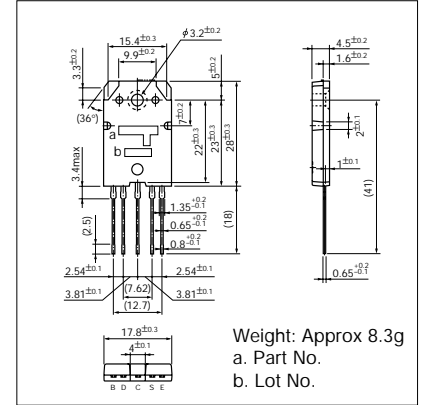
Symbol	Ratings	Unit
V _{CB0}	150	V
V _{CEO}	150	V
V _{EBO}	5	V
I _C	10	A
I _B	1	A
P _C	80 (T _C =25°C)	W
D _I F	10	mA
T _J	150	°C
T _{stg}	-40 to +150	°C

■ Electrical Characteristics (Ta=25°C)

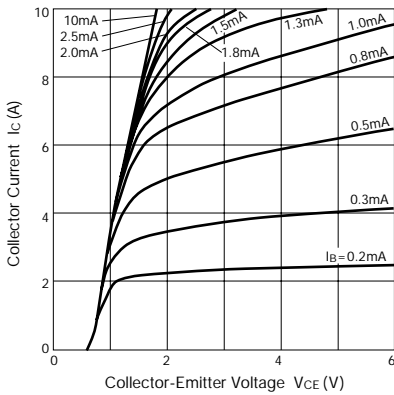
Symbol	Conditions	Ratings			Unit
		min	typ	max	
I _{CBO}	V _{CB} =150V			100	μA
I _{EBO}	V _{EB} =5V			100	μA
V _{CEO}	I _C =30mA	150			V
h _{FE} *	V _{CE} =4V, I _C =6A	5000		20000	
V _{CE(sat)}	I _C =6A, I _B =6mA			2.0	V
V _{BE(sat)}	I _C =6A, I _B =6mA			2.5	V
V _{BE}	V _{CE} =20V, I _C =40mA		1220		mV
D _I V _F	I _F =2.5mA		705		mV
R _E	I _E =1A	0.176	0.22	0.264	Ω

*h_{FE} Rank \bar{O} (5000 to 12000), Y (8000 to 20000)

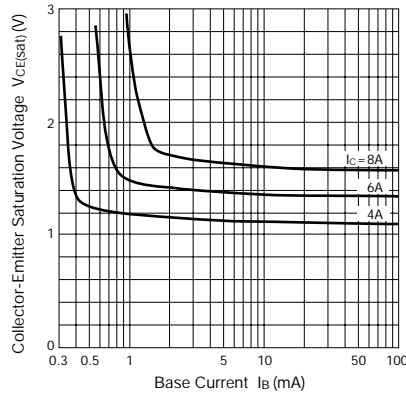
External Dimensions (Unit: mm)



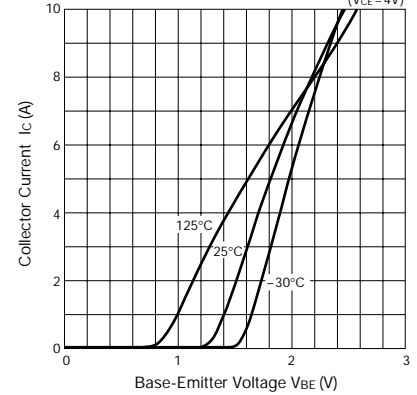
I_C-V_{CE} Characteristics (Typical)



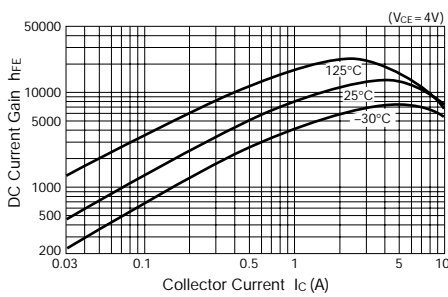
V_{CE(sat)}-I_B Characteristics (Typical)



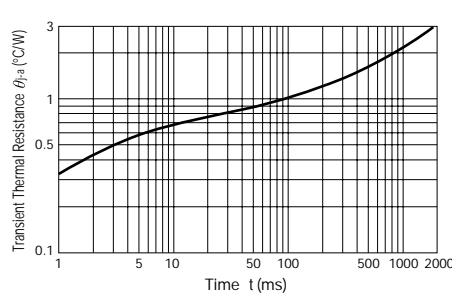
I_C-V_{BE} Temperature Characteristics (V_{CE}=4V)



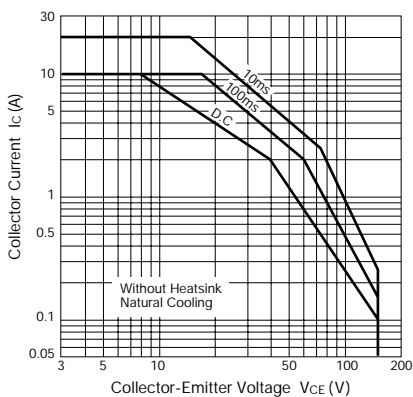
h_{FE}-I_C Characteristics (Typical) (V_{CE}=4V)



θ_{j-a}-t Characteristics



Safe Operating Area (Single Pulse)



P_C-T_a Derating

