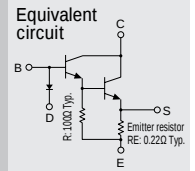


Built-in temperature
compensation diodes
Built-in emitter resistor
Darlington

SAP16N



(Complement to type SAP16P)

Application: Audio

Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V _{CB0}	160	V
V _{CEO}	160	V
V _{EB0}	5	V
I _C	15	A
I _B	1	A
P _C	150 (T _C =25°C)	W
Di I _F	10	mA
T _J	150	°C
Tstg	-40 to +150	°C

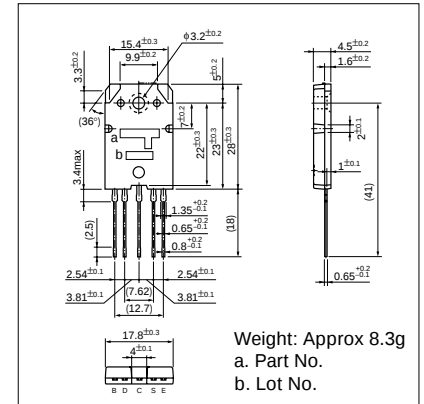
Electrical Characteristics (Ta=25°C)

Symbol	Conditions	Ratings			Unit
		min	typ	max	
I _{CB0}	V _{CB} =160V			100	μA
I _{EB0}	V _{EB} =5V			100	μA
V _{CEO}	I _C =30mA	160			V
h _{FE} *	V _{CE} =4V, I _C =10A	5000		20000	
V _{CE(sat)}	I _C =10A, I _B =10mA			2.0	V
V _{BE(sat)}	I _C =10A, I _B =10mA			2.5	V
V _{BE}	V _{CE} =20V, I _C =40mA		1190		mV
Di V _F	I _F =2.5mA		705		mV
R _E	I _E =1A	0.176	0.22	0.264	Ω
R _{EB}		90	100	110	Ω

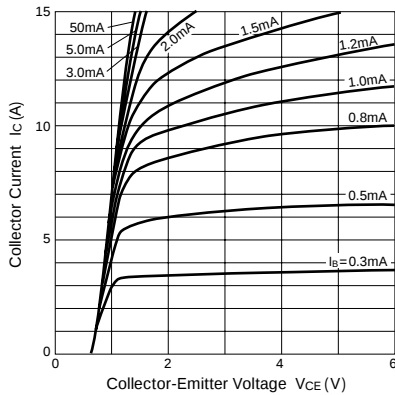
*h_{FE} Rank $\bar{O}$ (5000 to 12000), Y (8000 to 20000)

External Dimensions

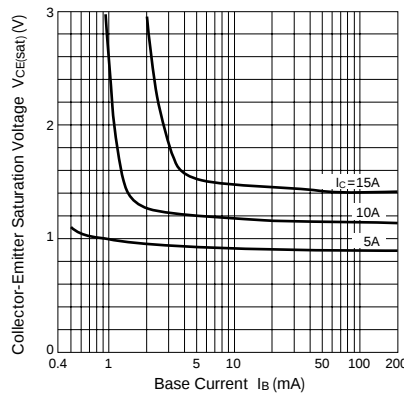
(Unit: mm)



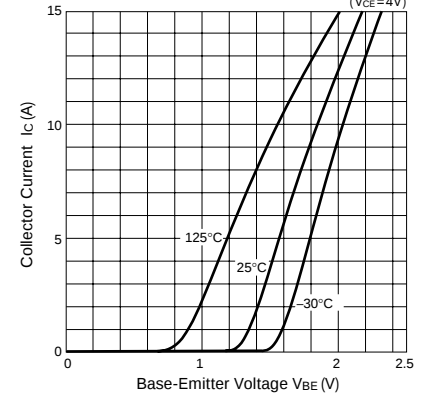
I_C-V_{CE} Characteristics (Typical)



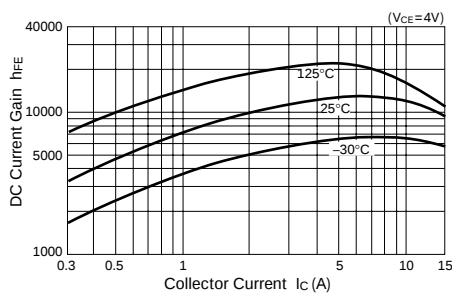
V_{CE(sat)}-I_B Characteristics (Typical)



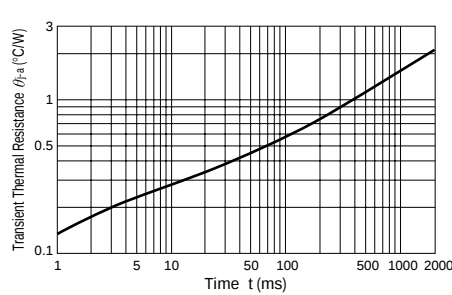
I_C-V_{BE} Temperature Characteristics (Typical)



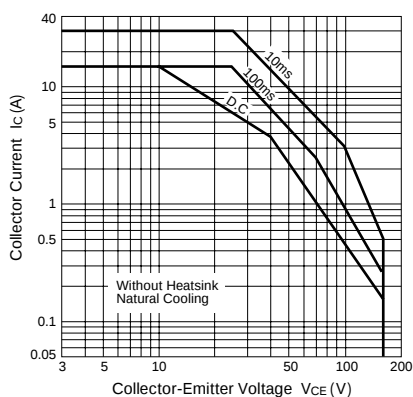
h_{FE}-I_C Characteristics (Typical)



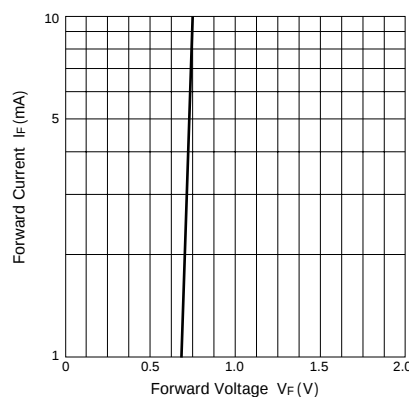
θ_{J-a}-t Characteristics



Safe Operating Area (Single Pulse)



Di I_F-V_F Characteristics (Typical)



P_C-T_a Derating

