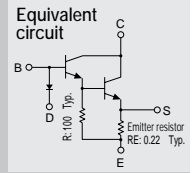


Built-in temperature compensation diodes
 Built-in emitter resistor
 Darlington

SAP16N



(Complement to type SAP16P)

Application: Audio

■ Absolute maximum ratings (Ta=25°C)

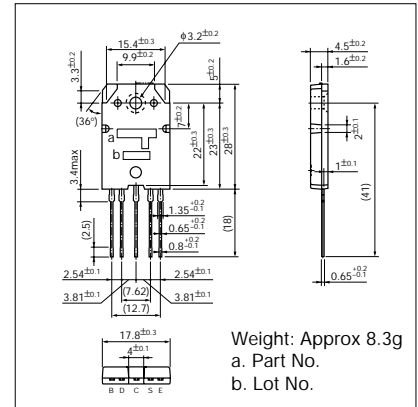
Symbol	Ratings	Unit
V _{CB0}	160	V
V _{CEO}	160	V
V _{EBO}	5	V
I _C	15	A
I _B	1	A
P _C	150(T _C =25°C)	W
D _I I _F	10	mA
T _J	150	°C
T _{stg}	-40 to +150	°C

■ Electrical Characteristics (Ta=25°C)

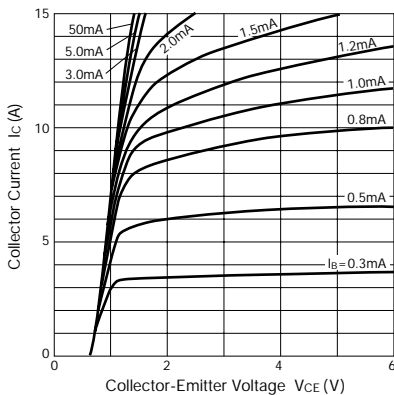
Symbol	Conditions	Ratings			Unit
		min	typ	max	
I _{CB0}	V _{CB} = 160V			100	µA
I _{EBO}	V _{EB} = 5V			100	µA
V _{CEO}	I _C = 30mA, I _B = 0	160			V
h _{FE} *	V _{CE} = 4V, I _C = 10A	5000		20000	
V _{CE(sat)}	I _C = 10A, I _B = 10mA			2.0	V
V _{BE(sat)}	I _C = 10A, I _B = 10mA			2.5	V
V _{BE}	V _{CE} = 20V, I _C = 40mA		1190		mV
D _I 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 $\bar{0}$ (5000 to 12000), Y (8000 to 20000)

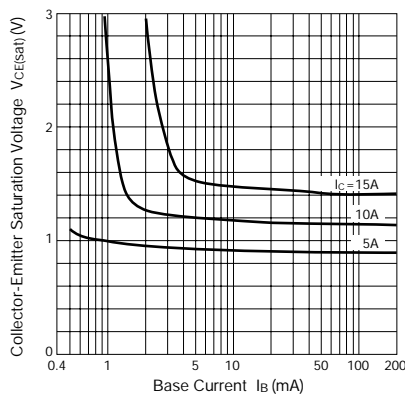
External Dimensions (Unit: mm)



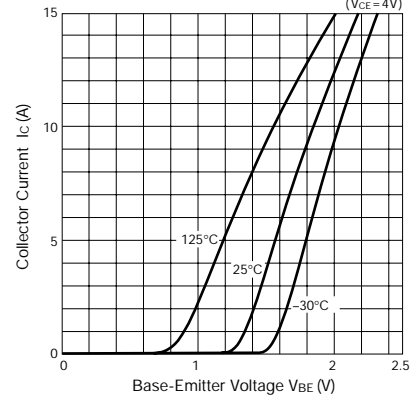
I_C - V_{CE} Characteristics (Typical)



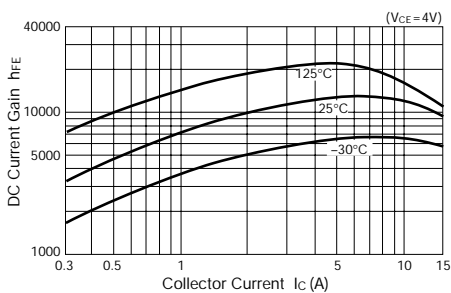
V_{CE(sat)} - I_B Characteristics (Typical)



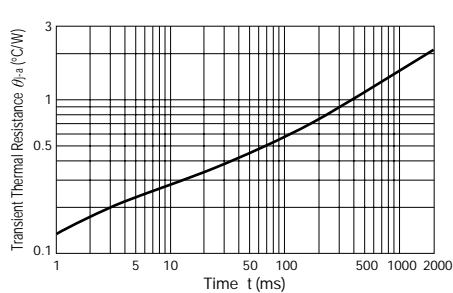
I_C - V_{BE} Temperature Characteristics (Typical)



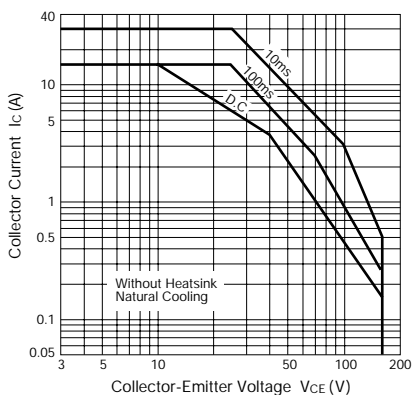
h_{FE} - I_C Characteristics (Typical)



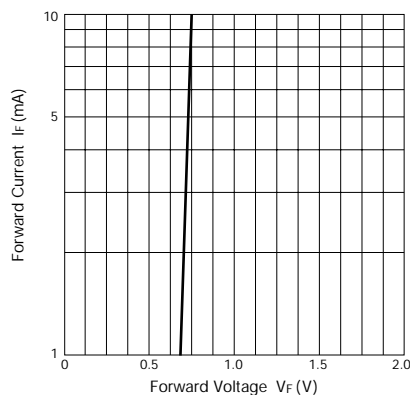
θ_{j-a} - t Characteristics



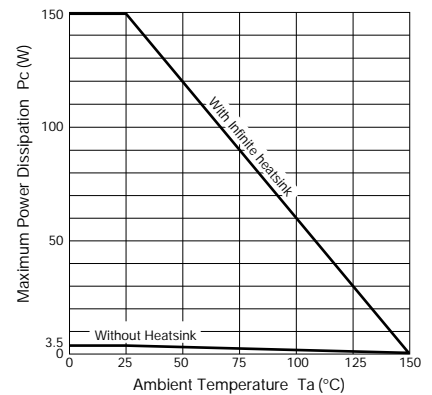
Safe Operating Area (Single Pulse)



D_I I_F - V_F Characteristics (Typical)



P_C - T_a Derating



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