

2SD1975

Silicon NPN Triple-Diffused Planar Type

High Power Amplifier
Complementary Pair with 2SB1317

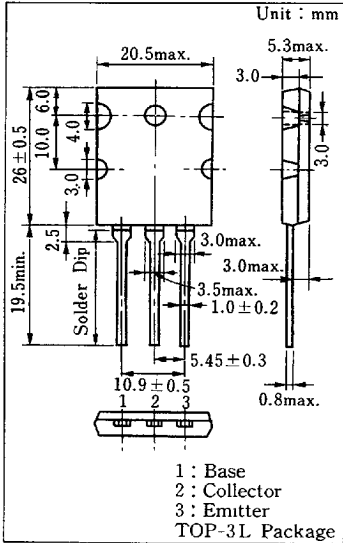
■ Features

- Very good linearity of DC current gain (h_{FE})
- Wide area of safety operation (ASO)
- High transition frequency (f_T)
- Optimum for hifi audio amplifier output

■ Absolute Maximum Ratings ($T_c=25^{\circ}\text{C}$)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	180	V
Collector-emitter voltage	V_{CE0}	180	V
Emitter-base voltage	V_{EB0}	5	V
Peak collector current	I_{CP}	25	A
Collector current	I_C	15	A
Collector power dissipation	$T_C=25^{\circ}\text{C}$ $T_a=25^{\circ}\text{C}$	P_C	W
Junction temperature	T_j	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	$-55\sim+150$	$^{\circ}\text{C}$

■ Package Dimensions

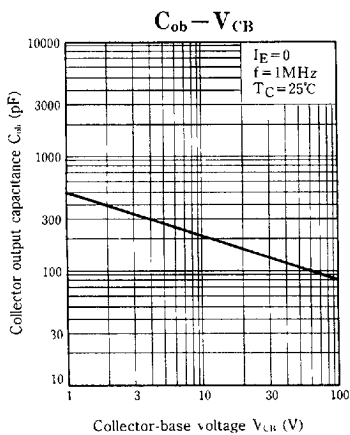
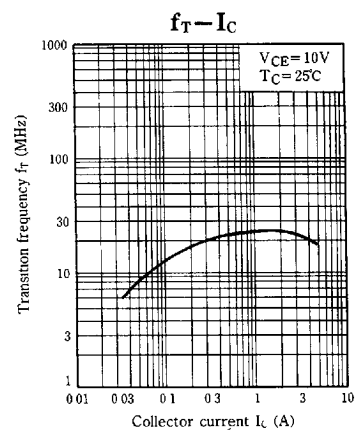
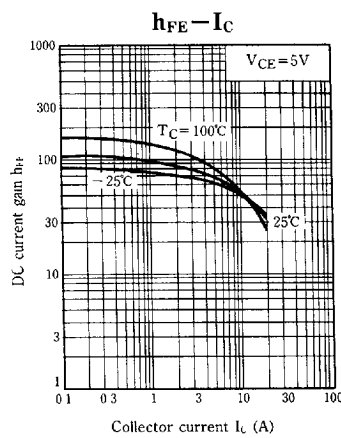
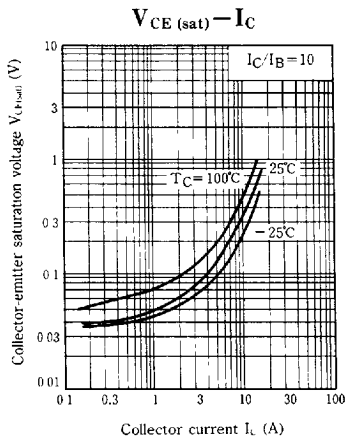
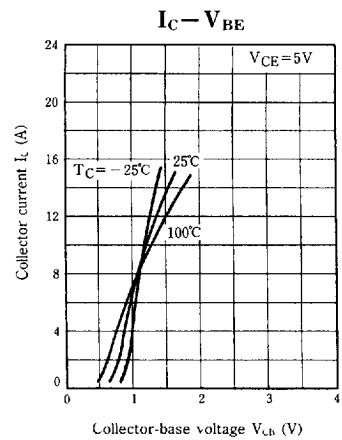
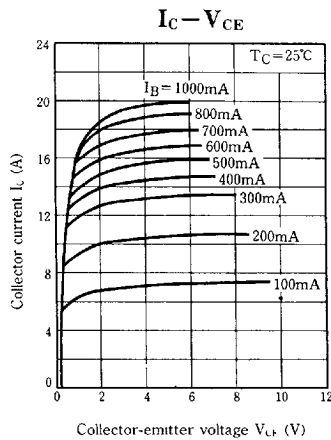
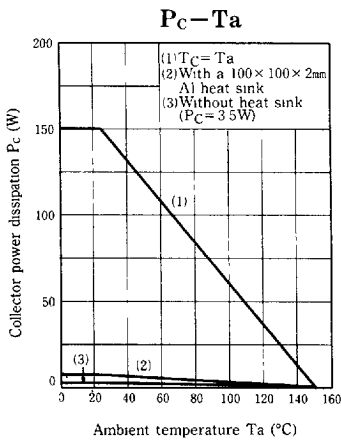


■ Electrical Characteristics ($T_c=25^{\circ}\text{C}$)

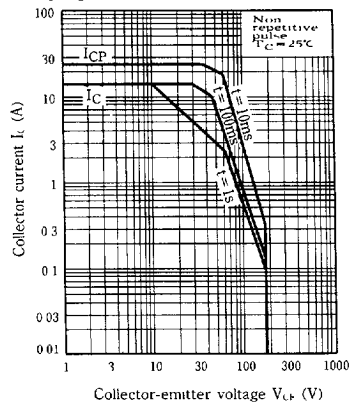
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CB0}	$V_{CB}=180\text{V}, I_E=0$			50	μA
Emitter cutoff current	I_{EB0}	$V_{EB}=3\text{V}, I_C=0$			50	μA
DC current gain	h_{FE1}	$V_{CE}=5\text{V}, I_C=20\text{mA}$	20			
	h_{FE2}^*	$V_{CE}=5\text{V}, I_C=1\text{A}$	60		200	
	h_{FE3}	$V_{CE}=5\text{V}, I_C=8\text{A}$	20			
Base-emitter voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=8\text{A}$			1.8	V
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10\text{A}, I_B=1\text{A}$			2.5	V
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=0.5\text{A}, f=1\text{MHz}$		20		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		200		pF

* h_{FE2} Classifications

Class	Q	S	P
h_{FE2}	60~120	80~160	100~200



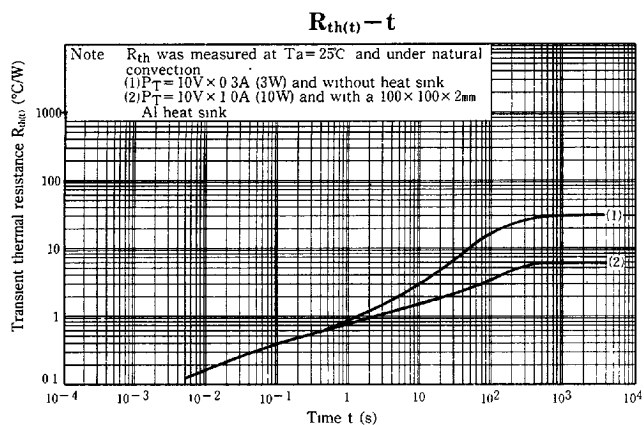
Safety operation area-forward bias (ASO)



6932852 0016918 646

-917-

Panasonic



6932852 0016919 582

Panasonic

—918—