

2SB1435

Silicon PNP Epitaxial Planar Type

AF Output Amplifier

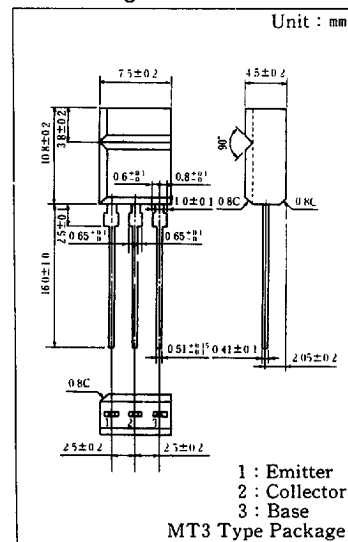
■ Features

- Low collector-emitter saturation voltage ($V_{CE(sat)}$)
- High collector current (I_C)
- Automatic mounting by radial taping is possible.

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

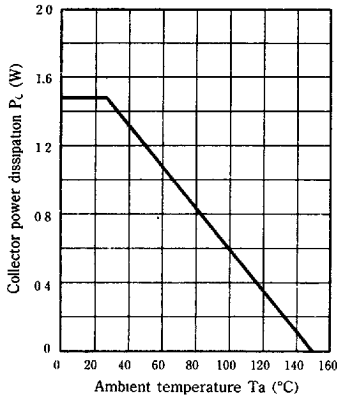
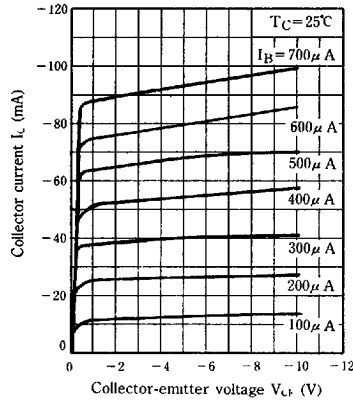
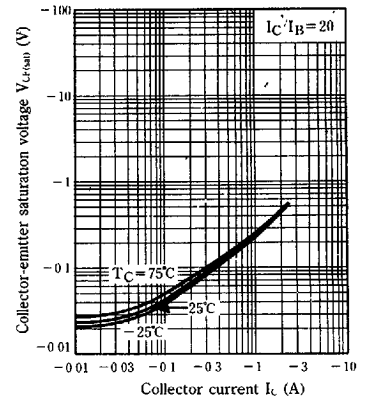
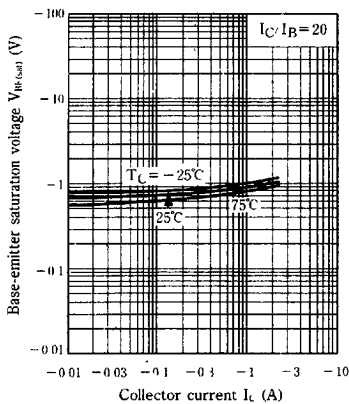
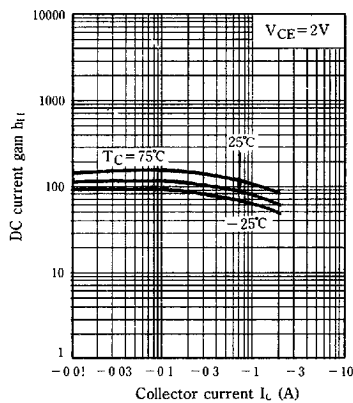
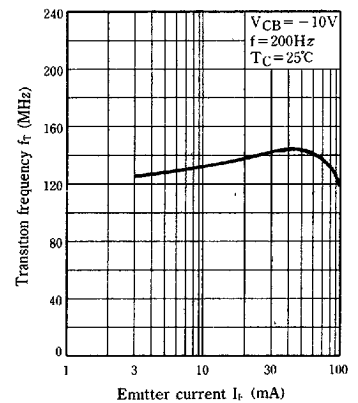
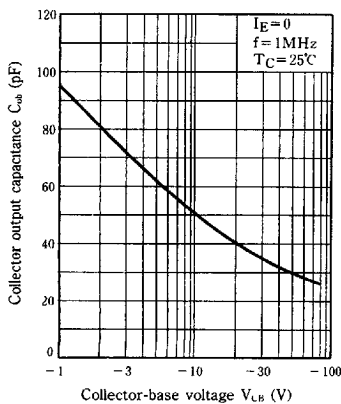
Item	Symbol	Value	Unit
Collector-base voltage	V_{CB0}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EB0}	-5	V
Peak collector current	I_{CP}	-3	A
Collector current	I_C	-2	A
Collector power dissipation	P_C	1.5	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +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_{CBO}	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	μA
Collector-base voltage	V_{CEO}	$I_C = -10\mu\text{A}, I_E = 0$	-50			V
Collector-emitter voltage	V_{CEO}	$I_C = -1\text{mA}, I_B = 0$	-50			V
Emitter cutoff current	V_{EB0}	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
DC current gain	h_{FE1}	$V_{CB} = -2\text{V}, I_C = -200\text{mA}$	120		340	
	h_{FE2}	$V_{CE} = -2\text{V}, I_C = -1\text{A}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1\text{A}, I_B = -50\text{mA}$		-0.2	-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1\text{A}, I_B = -50\text{mA}$		-0.85	-1.2	V
Transition frequency	f_T	$V_{CB} = -10\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$		80		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		45	60	pF

$P_C - T_a$  $I_C - V_{CE}$  $V_{CE(sat)} - I_C$  $V_{BE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CE}$  $R_{th(t)} - t$ 