

**SANYO****High  $h_{FE}$ , AF Amplifier Applications****Applications**

- Low frequency general-purpose amplifiers, drivers, muting circuits.

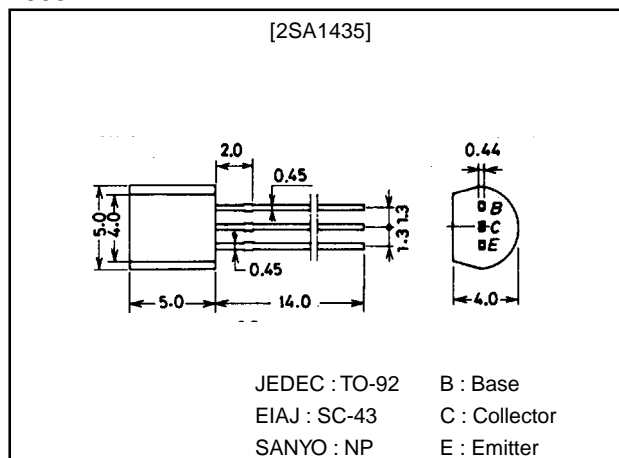
**Features**

- Adoption of MBIT process.
- High DC current gain ( $h_{FE}$ =500 to 1200).
- Large current capacity.
- Low collector-to-emitter saturation voltage ( $V_{CE(sat)}$ ≤0.5V max).
- High  $V_{EBO}$  ( $V_{EBO}$ ≥15V).

**Package Dimensions**

unit:mm

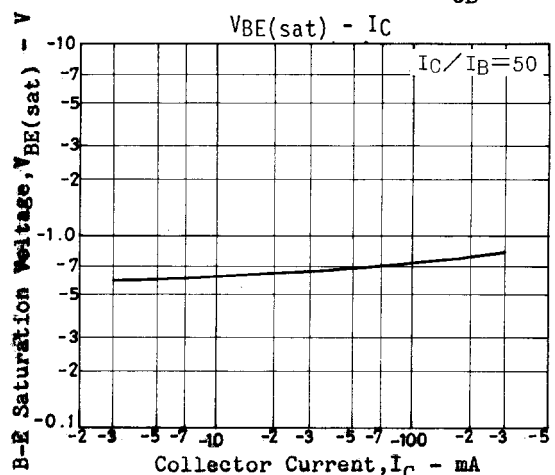
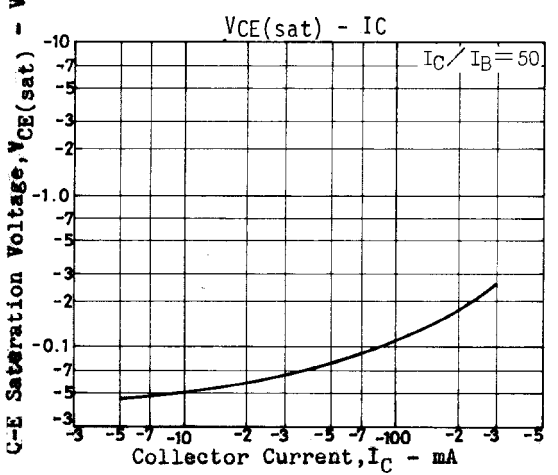
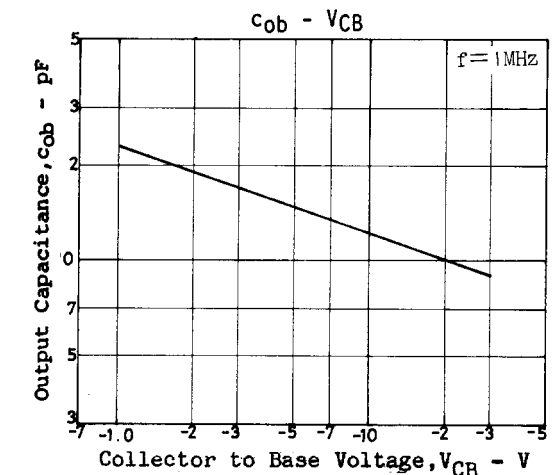
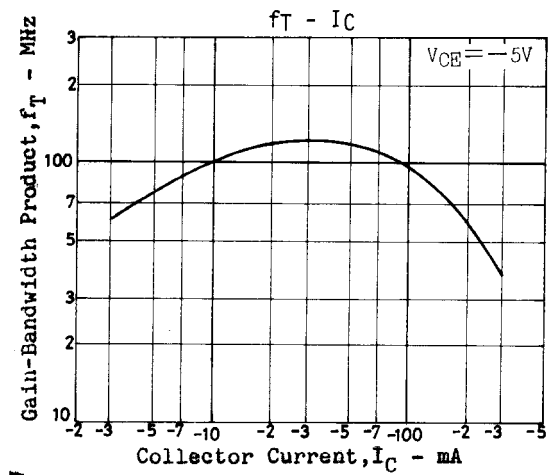
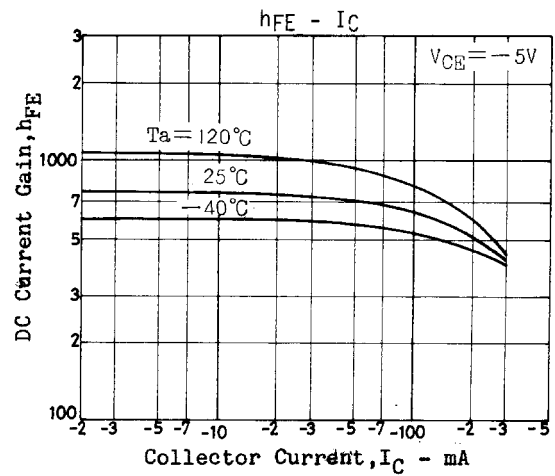
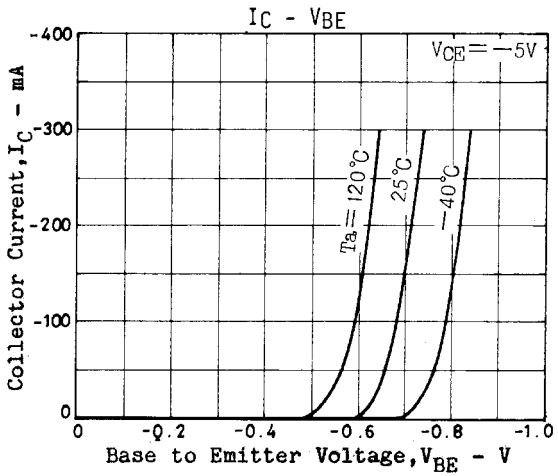
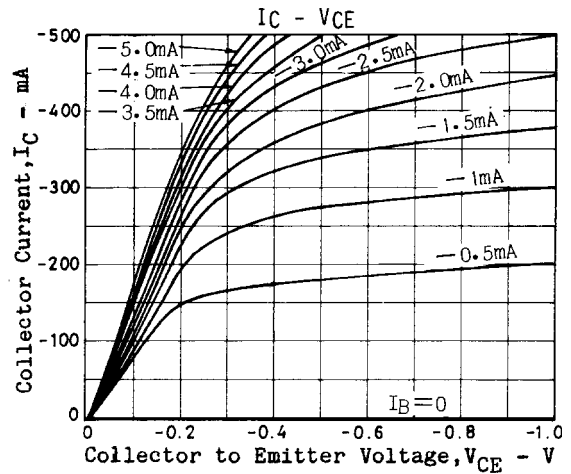
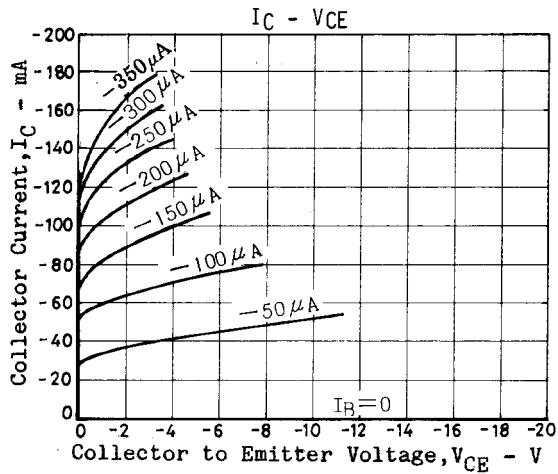
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**Specifications****Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$** 

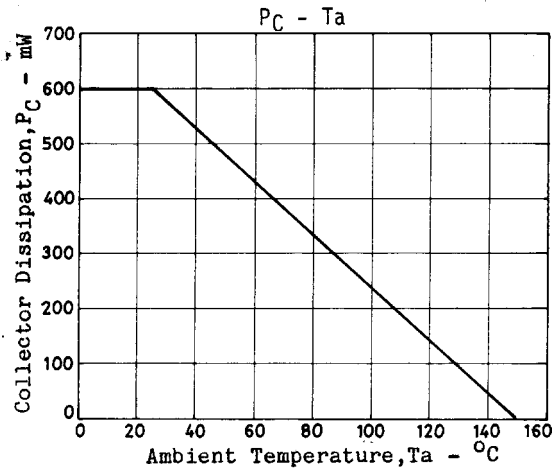
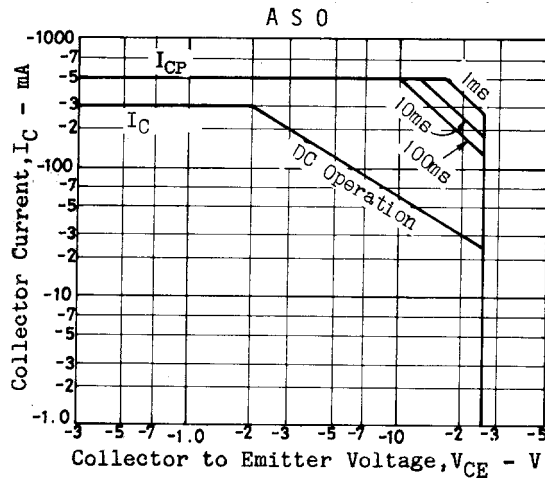
Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	$V_{CBO}$		-30	V
Collector-to-Emitter Voltage	$V_{CEO}$		-25	V
Emitter-to-Base Voltage	$V_{EBO}$		-15	V
Collector Current	$I_C$		-300	mA
Collector Current (Pulse)	$I_{CP}$		-500	mA
Collector Dissipation	$P_C$		600	mW
Junction Temperature	$T_J$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ\text{C}$

**Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	$I_{CBO}$	$V_{CB}=-40\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=-10\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC Current Gain	$h_{FE1}$	$V_{CE}=-5\text{V}, I_C=-10\text{mA}$	500	800	1200	
	$h_{FE2}$	$V_{CE}=-5\text{V}, I_C=-200\text{mA}$	200			
Gain-Bandwidth Product	$f_T$	$V_{CE}=-10\text{V}, I_C=-10\text{mA}$		100		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, f=1\text{MHz}$		7.5		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}, I_B=-4\text{mA}$		-0.2	-0.5	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-100\text{mA}, I_B=-4\text{mA}$		-0.75	-1.1	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, R_{BE}=\infty$	-50			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-15			V



## 2SA1435



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