

**2SA1435****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 ($V_{CE(sat)} \leq 0.5V$ max).
- High V_{EBO} ($V_{EBO} \geq 15V$).

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

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	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

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

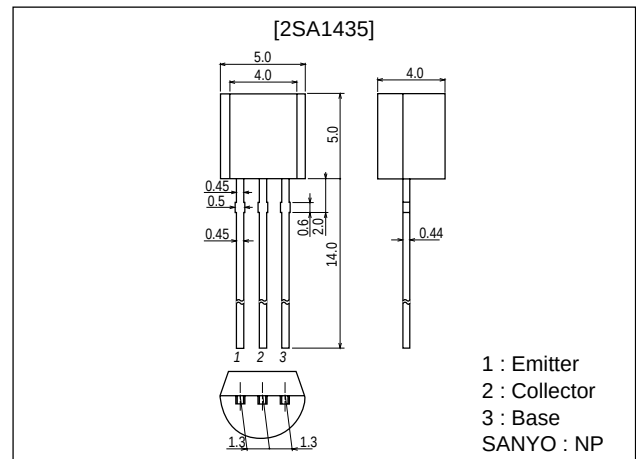
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Package Dimensions

unit:mm

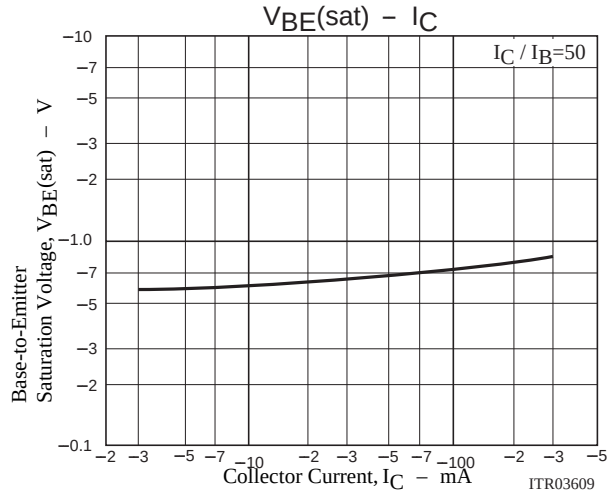
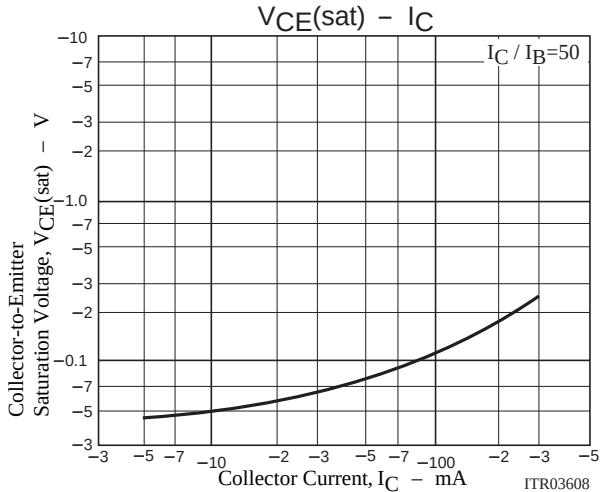
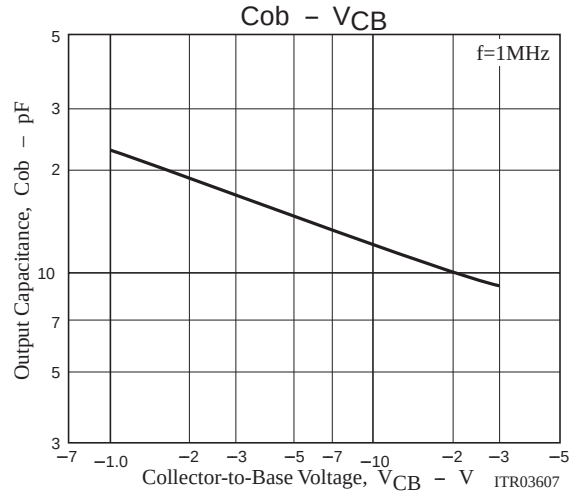
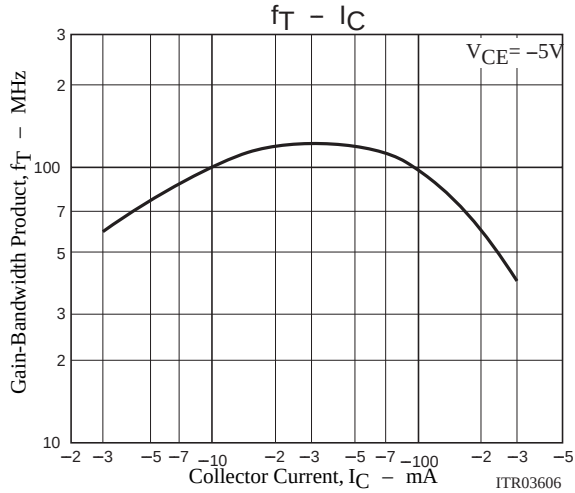
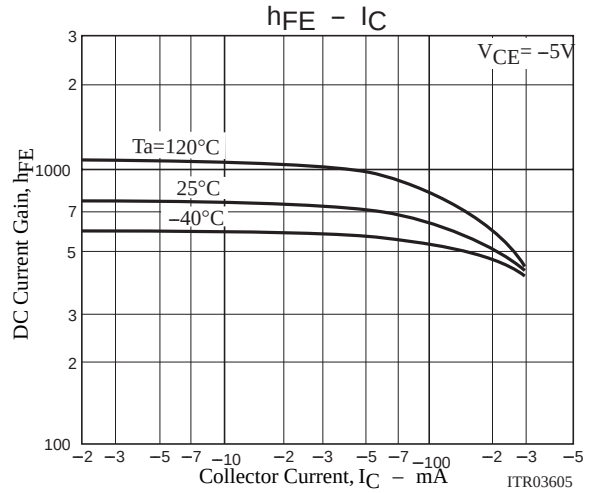
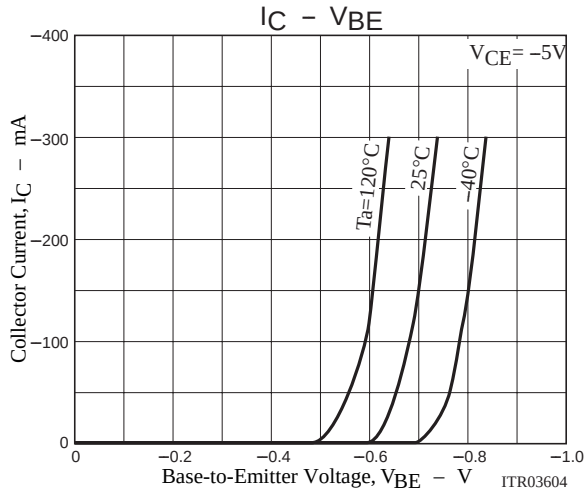
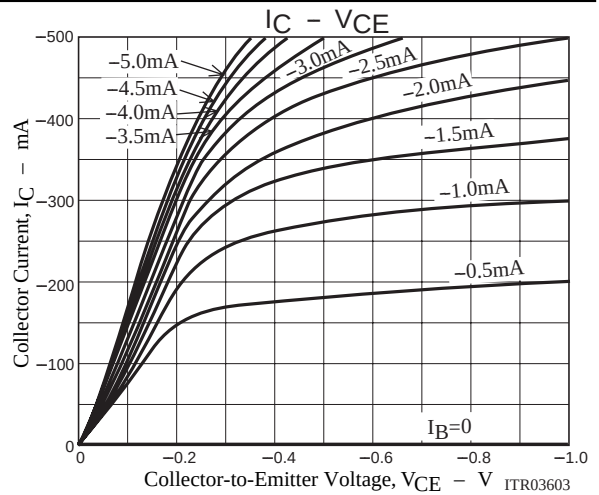
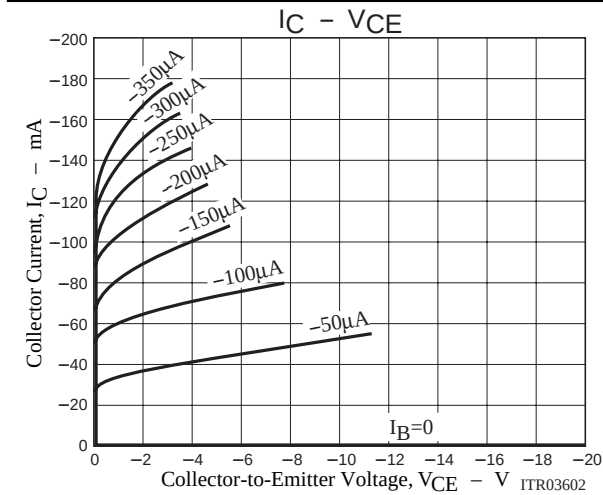
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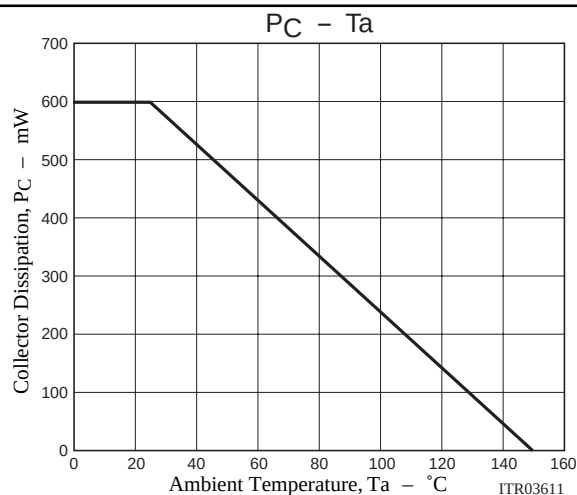
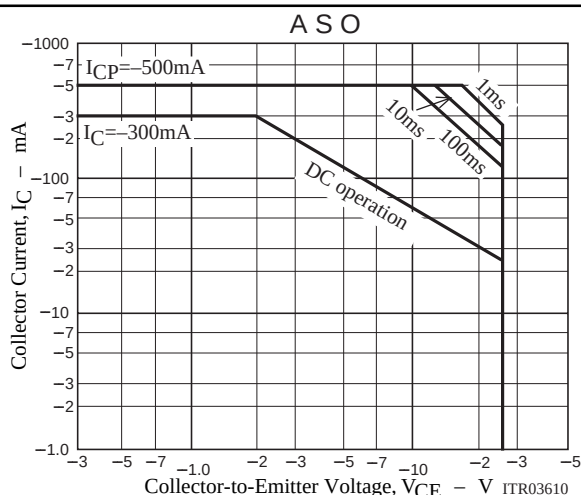
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