

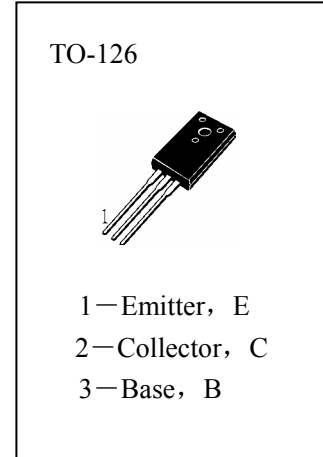
# HS631K

## APPLICATIONS

Low frequency power amplifier, Medium Seed switching.

## ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)

T <sub>stg</sub>	Storage Temperature	-55~150°C
T <sub>j</sub>	Junction Temperature	150°C
P <sub>C</sub>	Collector Dissipation (T <sub>c</sub> =25°C)	1W
V <sub>CB0</sub>	Collector-Base Voltage	-120V
V <sub>CEO</sub>	Collector-Emitter Voltage	-120V
V <sub>EBO</sub>	Emitter-Base Voltage	-5V
I <sub>C</sub>	Collector Current	-1A

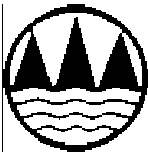


## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

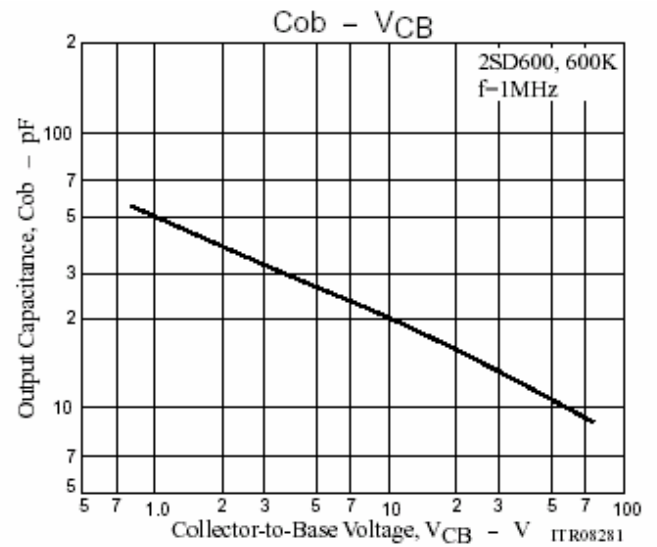
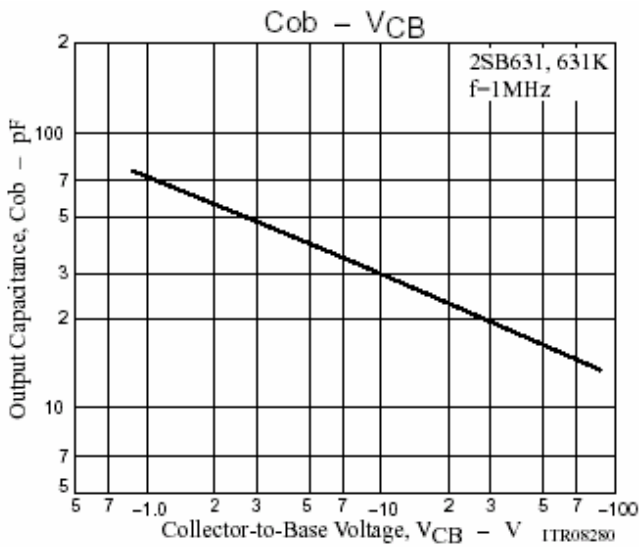
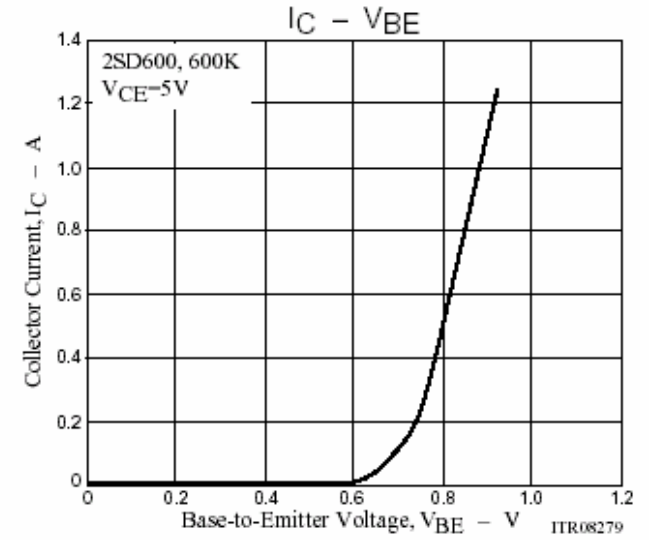
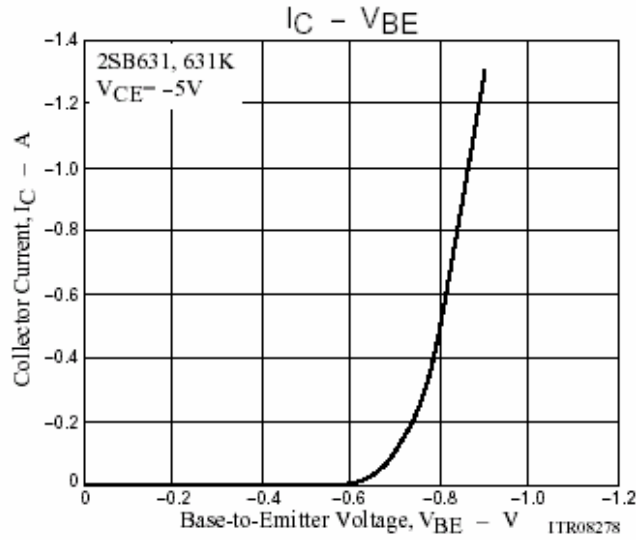
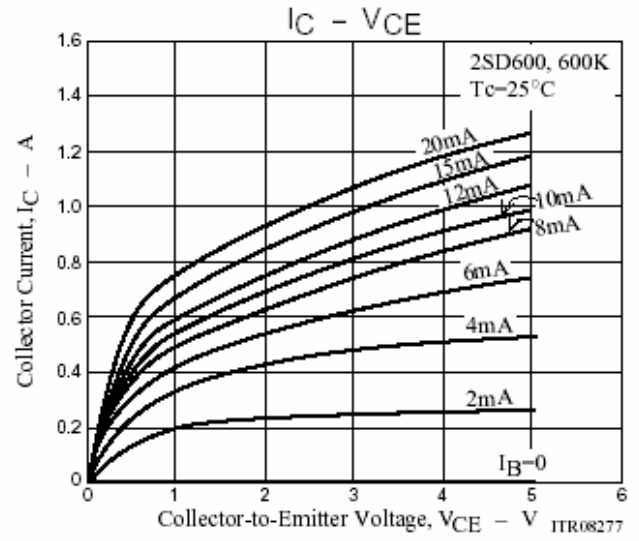
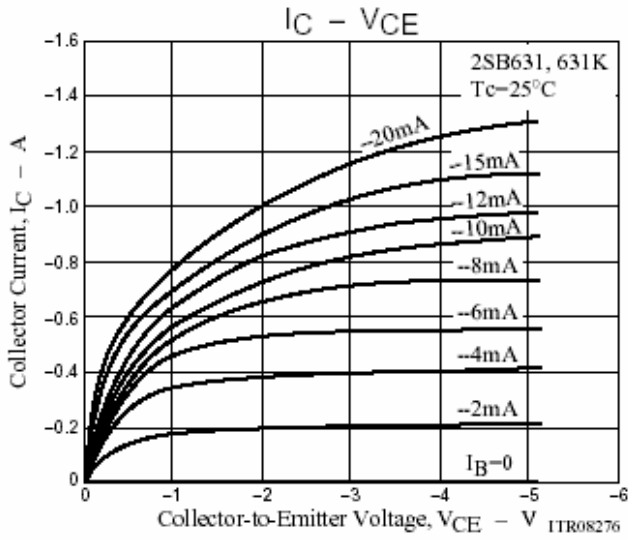
Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV <sub>CB0</sub>	Collector-Base Breakdown Voltage	-120			V	I <sub>C</sub> =-10 μA, I <sub>E</sub> =0
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	-120			V	I <sub>C</sub> =-1mA, I <sub>B</sub> =0
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	-5			V	I <sub>E</sub> =-10 μA, I <sub>C</sub> =0
I <sub>CBO</sub>	Collector Cut-off Current			-1	μA	V <sub>CB</sub> =-50V, I <sub>E</sub> =0
I <sub>EBO</sub>	Emitter Cut-off Current			-1	μA	V <sub>EB</sub> =-4V, I <sub>C</sub> =0
H <sub>FE</sub> (1)	DC Current Gain	60		320		V <sub>CE</sub> =-5V, I <sub>C</sub> =-50mA
H <sub>FE</sub> (2)	DC Current Gain	20				V <sub>CE</sub> =-5V, I <sub>C</sub> =-500mA
V <sub>CE(sat)</sub>	Collector- Emitter Saturation Voltage		-0.15	-0.4	V	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage		-0.85	-1.2	V	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA
t <sub>OFF</sub>	Turn-Off Time		100		nS	} See specified test circuit
t <sub>STG</sub>	Storage Time		600		nS	
t <sub>F</sub>	Fall Time		80		nS	
f <sub>t</sub>	Current Gain-Bandwidth Product		110		MHz	V <sub>CE</sub> =-10V, I <sub>C</sub> =-50mA,
C <sub>ob</sub>	Output Capacitance		30		pF	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz

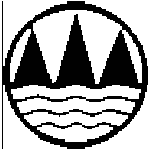
## h<sub>FE</sub> Classification

D	E	F
60—120	100—200	160—320



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