

SAMSUNG SEMICONDUCTOR INC 14E D 7964142 0006894 9 T-31-15

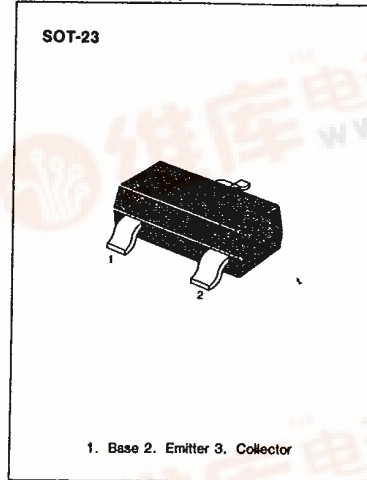
## KSC1623 NPN EPITAXIAL SILICON TRANSISTOR

LOW FREQUENCY AMPLIFIER  
HIGH FREQUENCY OSC

• Complement to KSA812

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	50	V
Emitter-Base Voltage	V <sub>EB0</sub>	5	V
Collector Current	I <sub>C</sub>	100	mA
Collector Dissipation	P <sub>C</sub>	200	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~150	°C



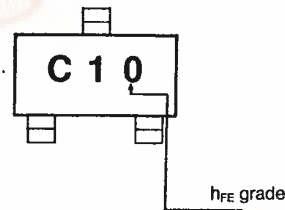
### ELECTRICAL CHARACTERISTICS (T<sub>a</sub> = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0			0.1	μA
Emitter Cutoff Current	I <sub>EB0</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0			0.1	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =1mA	90	200	600	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		0.15	0.3	V
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA		0.86	1.0	V
Base-Emitter On Voltage	V <sub>BE(on)</sub>	I <sub>C</sub> =1mA, V <sub>CE</sub> =6V	0.55	0.62	0.65	V
Current Gain-Bandwidth Product	f <sub>T</sub>	I <sub>E</sub> =-10mA, V <sub>CE</sub> =6V		250		MHz
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =6V, I <sub>E</sub> =0 f=1MHz		3		pF

### h<sub>FE</sub> CLASSIFICATION

Classification	O	Y	G	L
h <sub>FE</sub>	90-180	135-270	200-400	300-600

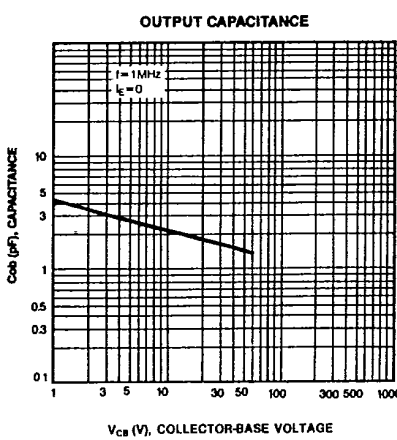
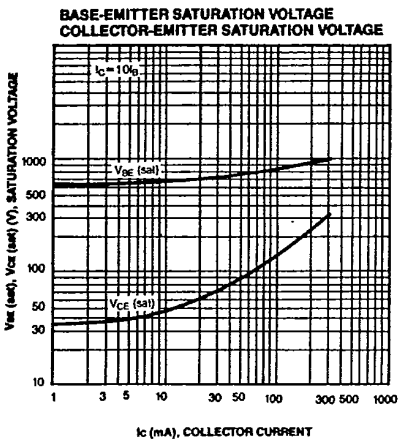
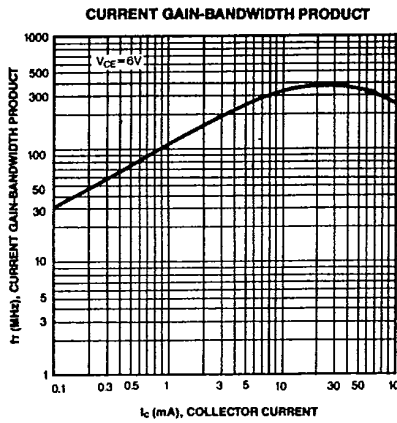
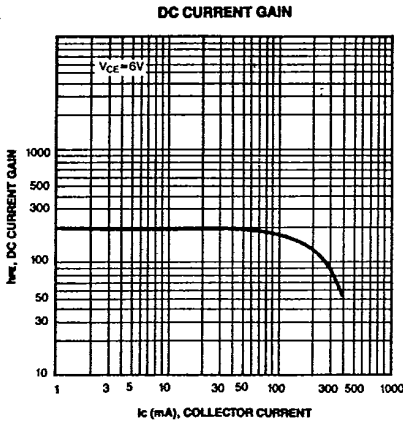
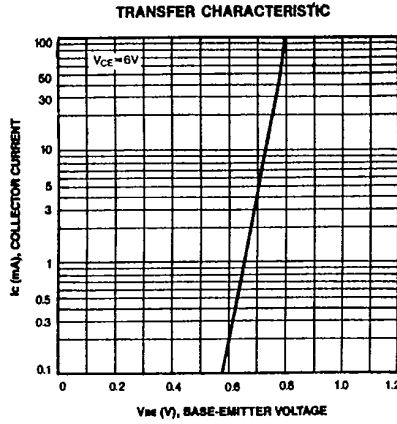
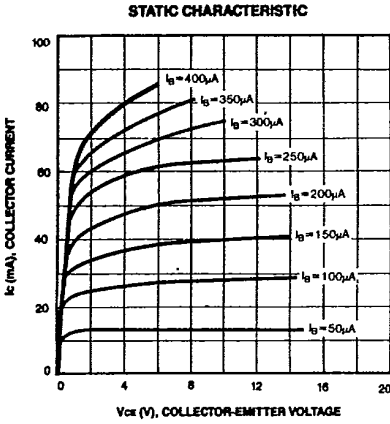
### Marking



**KSC1623**

**NPN EPITAXIAL SILICON TRANSISTOR**

T-31-15



3