

# Transistors

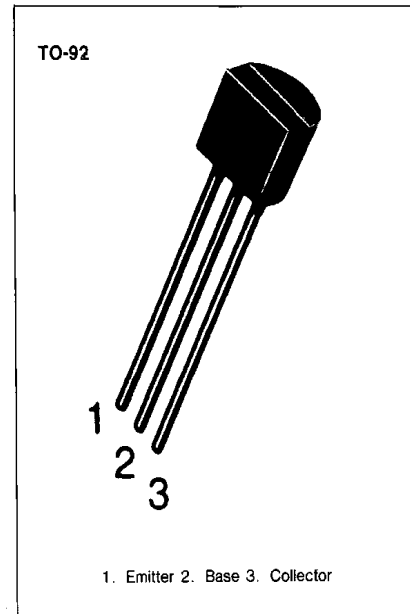
## 2SA1625

### HIGH VOLTAGE SWITCH

- High Breakdown Voltage
- High Speed Switching

### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Characteristics	Symbol	Rating	Unit
Collector Base Voltage	V <sub>CB0</sub>	-400	V
Collector Emitter Voltage	V <sub>CEO</sub>	-400	V
Emitter Base Voltage	V <sub>EB0</sub>	-7	V
Base Current	I <sub>B</sub>	-0.25	A
Collector Current (DC)	I <sub>C</sub>	-0.5	A
Collector Current (Pulse)	I <sub>C</sub>	-1.0	A
Collector Dissipation (Ta=25°C)	P <sub>C</sub>	0.75	W
Collector Dissipation (Tc=25°C)	P <sub>C</sub>	2	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~150	°C



### ELECTRICAL CHARACTERISTICS (Ta=25°C)

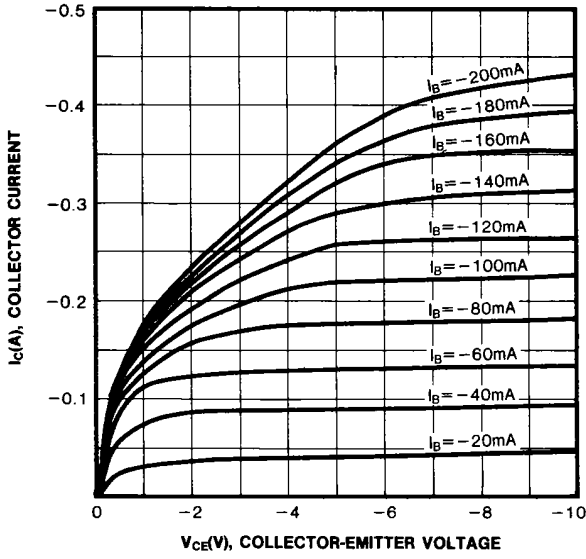
Characteristics	Symbol	Test Conditions	Min	Max	Unit
Collector Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = -1mA, I <sub>B</sub> = 0	-400		V
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> = -400V, I <sub>E</sub> = 0		-1	μA
Emitter Cutoff Current	I <sub>EB0</sub>	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0		-1	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -50mA	40	200	
Collector Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA		-1	A
Base Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA		-1.2	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>E</sub> = -10mA	10		MHz
Output Capacitance	C <sub>OB</sub>	V <sub>CB</sub> = -10V, f = 1MHz		25	pF
Turn On Time	t <sub>ON</sub>	I <sub>C</sub> = -100mA, R <sub>L</sub> = 1.5kΩ		1	us
Storage Time	t <sub>STG</sub>	I <sub>B1</sub> = -10mA, I <sub>B2</sub> = -10mA		5	us
Fall Time	t <sub>F</sub>	V <sub>CC</sub> = -150V		1	us

### hFE CLASSIFICATION

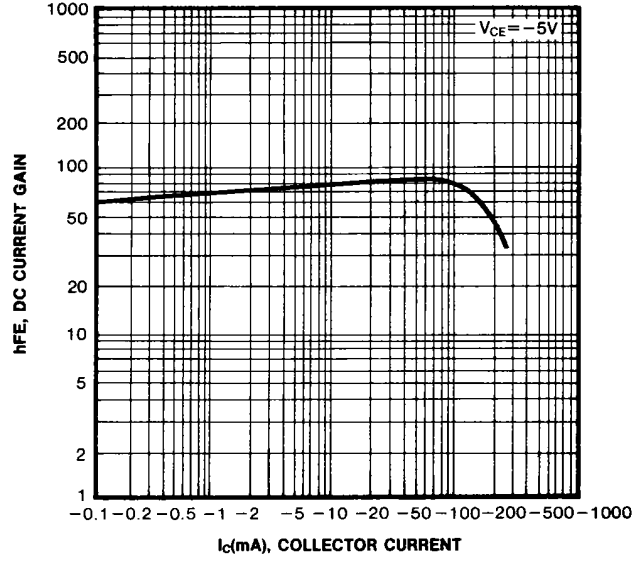
Classification	M	L	K
hFE	40-80	60-120	100-200



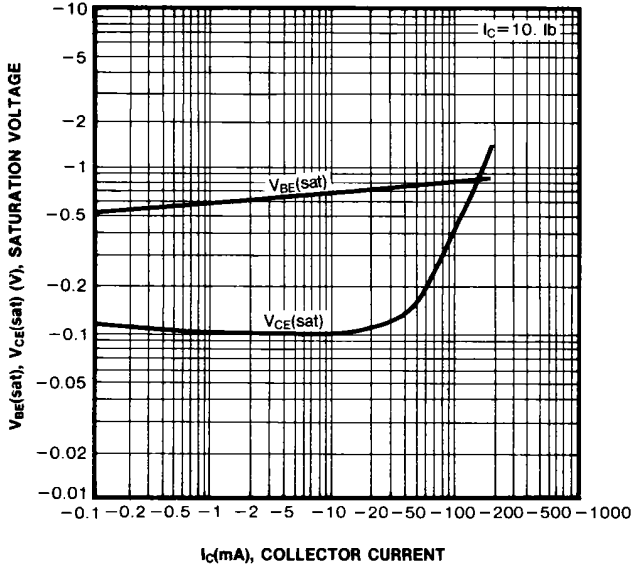
STATIC CHARACTERISTIC



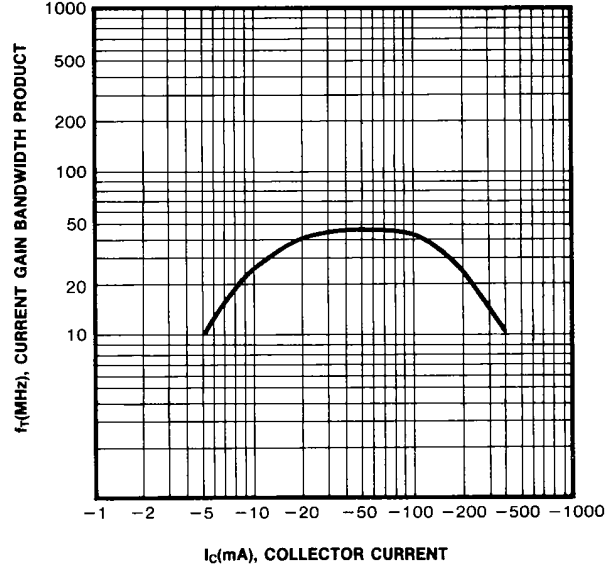
DC CURRENT GAIN



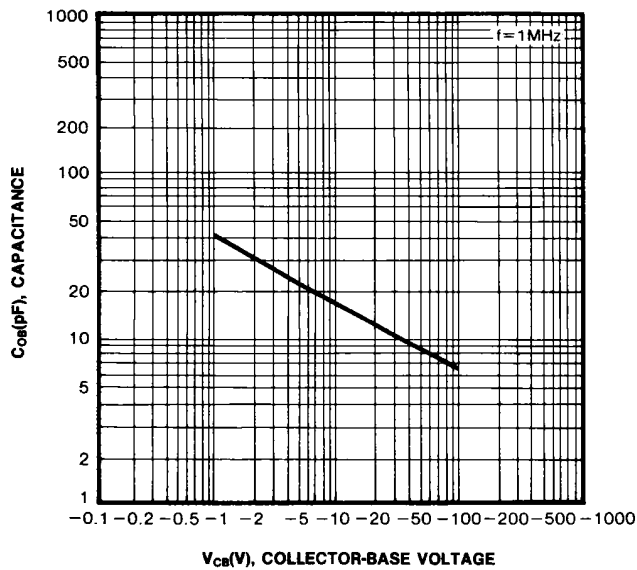
COLLECTOR-EMITTER SATURATION VOLTAGE  
BASE-EMITTER SATURATION VOLTAGE



CURRENT GAIN BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE



POWER DERATING

