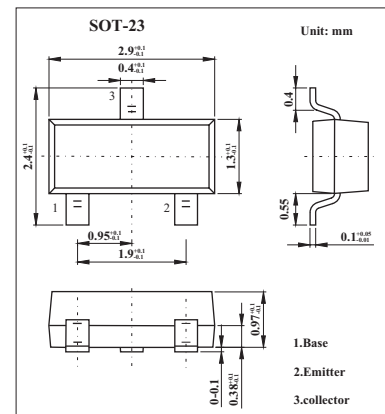


## General Purpose Transistor

## 2SC2412K

## ■ Features

- Low Cob.Cob=2.0pF (Typ.)



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	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>	7	V
Collector current	I <sub>C</sub>	0.15	A
Collector power dissipation	P <sub>C</sub>	0.2	W
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> =50μA	60			V
Collector-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> =1mA	50			V
Emitter-base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> =50μA	7			V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> =60V			0.1	μA
Emitter cutoff current	I <sub>EB0</sub>	V <sub>EB</sub> =7V			0.1	μA
DC current Gain	h <sub>FE</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =1mA	120		560	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> /I <sub>B</sub> =50mA/5mA			0.4	V
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> =0A, f=1MHz		2	3.5	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> =-2mA, f=100MHz		180		MHz

## ■ hFE Classification

Marking	BQ	BR	BS
Rank	Q	R	S
hFE	120~270	180~390	270~560

## 2SC2412K

■ Typical Characteristics

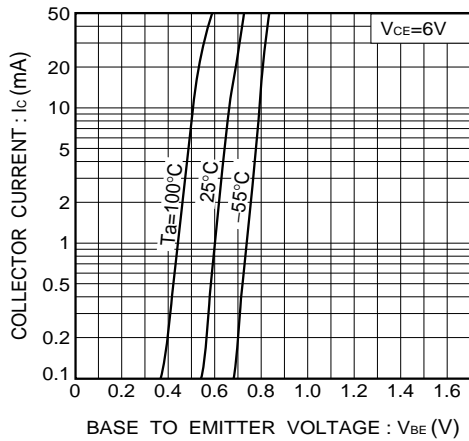


Fig.1 Grounded emitter propagation characteristics

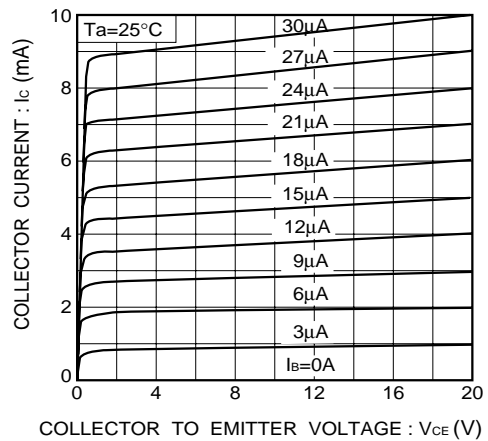


Fig.2 Grounded emitter output characteristics

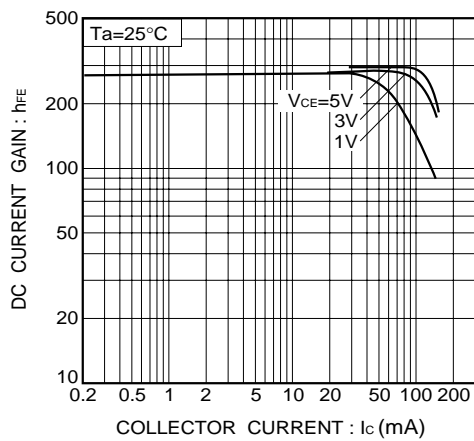


Fig.3 DC current gain vs. collector current

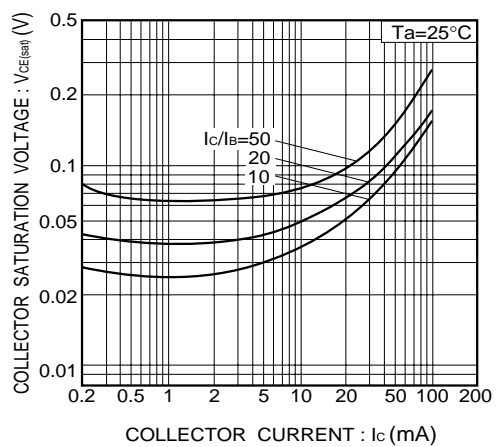


Fig.4 Collector-emitter saturation voltage vs. collector current

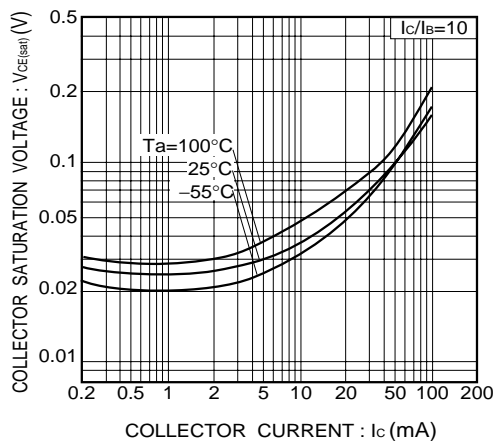


Fig.5 Collector-emitter saturation voltage vs. collector current

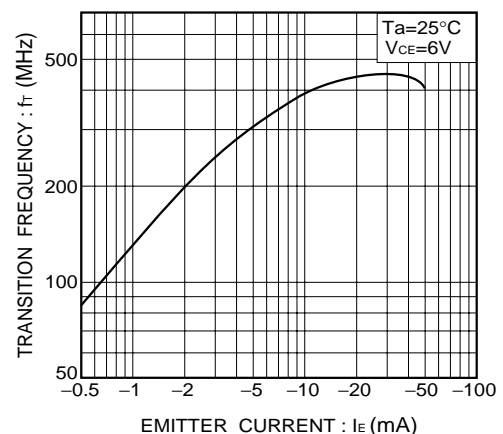


Fig.6 Gain bandwidth product vs. emitter current

### 2SC2412K

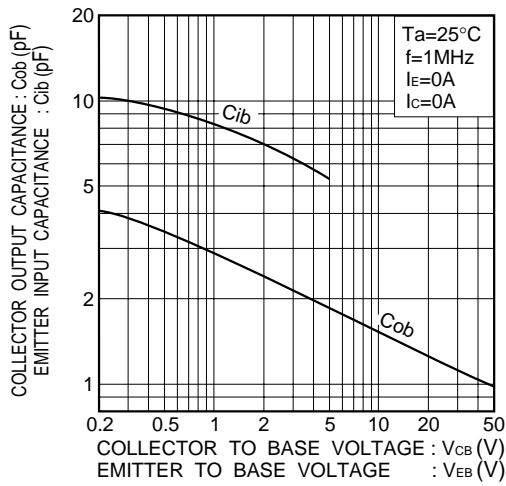


Fig.7 Collector output capacitance vs. collector-base voltage  
Emitter input capacitance vs. emitter-base voltage

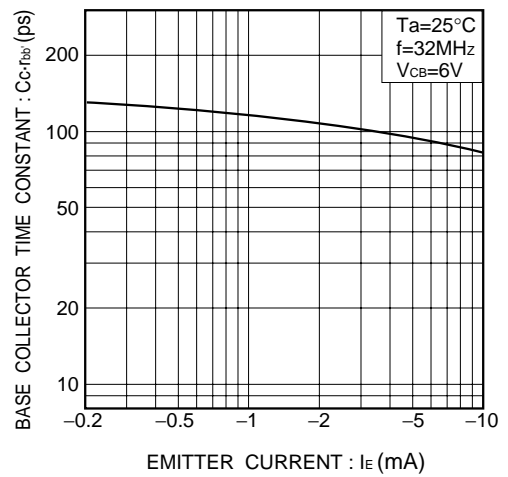


Fig.8 Base-collector time constant vs. emitter current