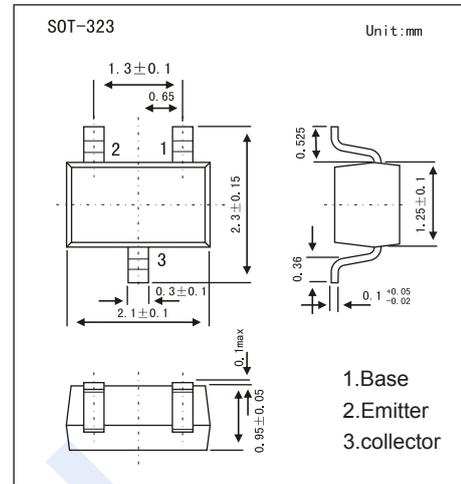


## NPN Transistors

## KTC4075

### ■ Features

- Excellent hFE Linearity
- Low Noise
- Complementary to KTA2014



### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	60	V
Collector - Emitter Voltage	V <sub>CE0</sub>	50	
Emitter - Base Voltage	V <sub>EB0</sub>	5	
Collector Current - Continuous	I <sub>c</sub>	150	mA
Base Current	I <sub>B</sub>	30	
Collector Power Dissipation	P <sub>c</sub>	100	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to 150	

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = 100uA, I <sub>E</sub> = 0	60			V
Collector- emitter breakdown voltage	V <sub>CE0</sub>	I <sub>c</sub> = 1 mA, I <sub>B</sub> =0	50			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = 100uA, I <sub>c</sub> = 0	5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 60V, I <sub>E</sub> = 0			0.1	uA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = 5V, I <sub>c</sub> =0			0.1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =100mA, I <sub>B</sub> =10mA			0.25	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =100mA, I <sub>B</sub> =10mA			1.2	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 6V, I <sub>c</sub> =2mA	70		700	
Noise Figure	NF	V <sub>CE</sub> = 6V, I <sub>c</sub> = 0.1 mA, R <sub>g</sub> =10 KΩ, f=1KHz			10	dB
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> =0, f=1MHz			3.5	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>c</sub> = 1mA	80			MHz

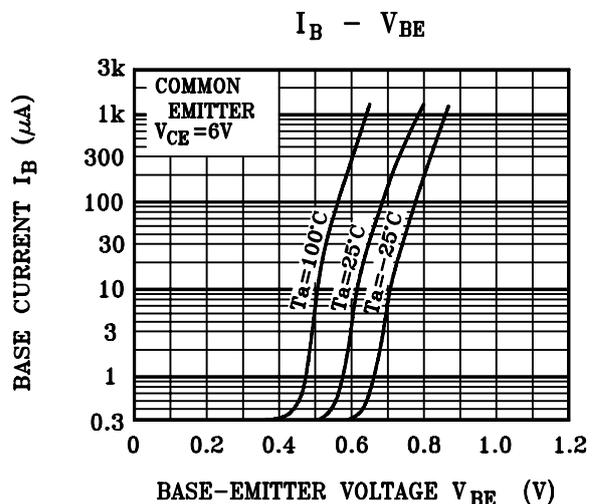
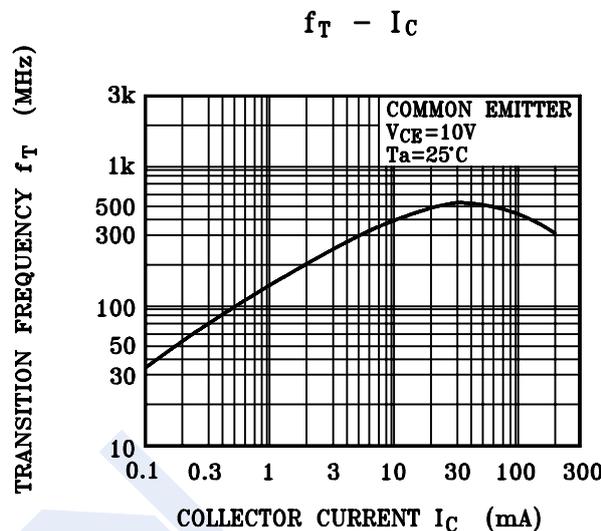
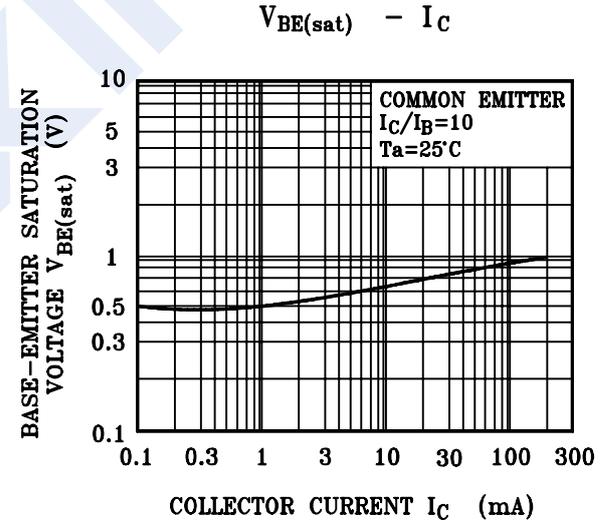
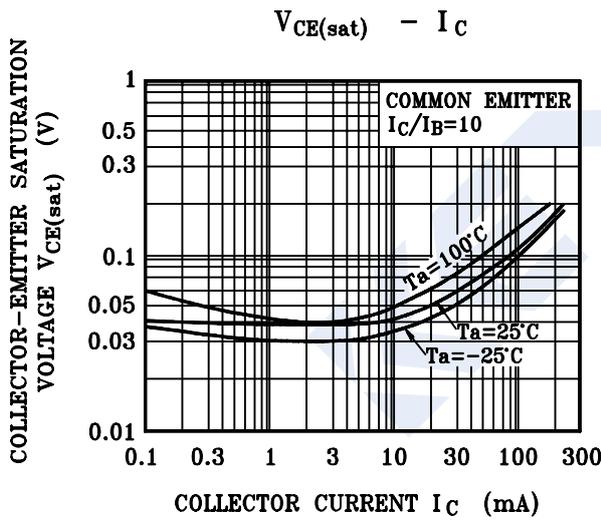
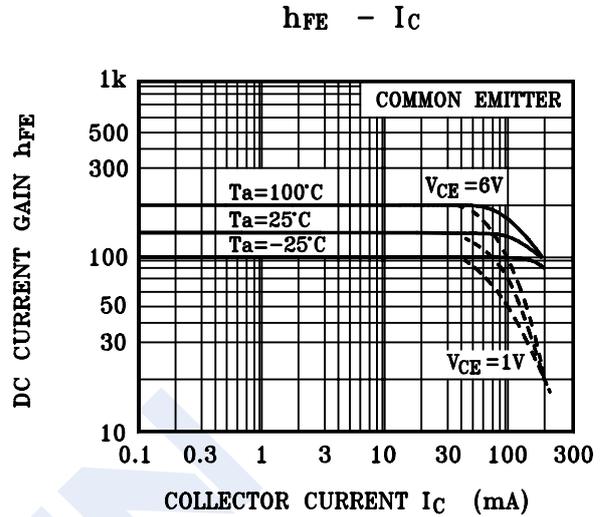
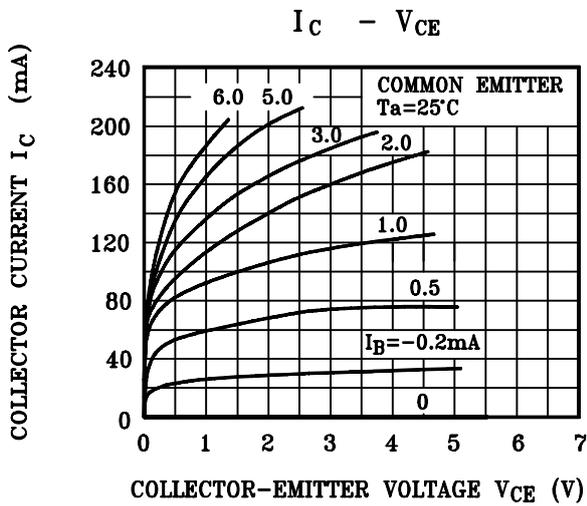
### ■ Classification of hfe

Type	KTC4075-O	KTC4075-Y	KTC4075-GR	KTC4075-BL
Range	70-140	120-240	200-400	350-700
Marking	LO	LY	LG	LL

### NPN Transistors

### KTC4075

■ Typical Characteristics



### NPN Transistors

### KTC4075

■ Typical Characteristics

