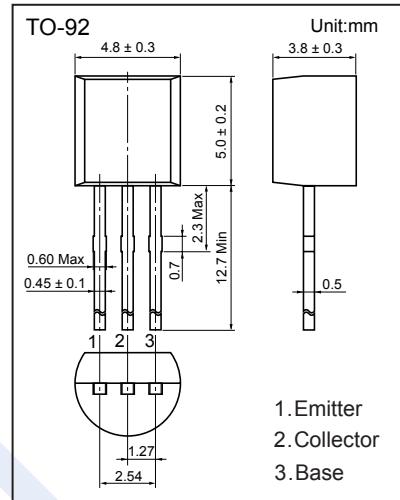


**NPN Transistors****KTC3198****■ Features**

- Excellent hFE Linearity
- Low Noise
- Complementary to KTA1266

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CBO</sub>	60	V
Collector - Emitter Voltage	V <sub>CEO</sub>	50	
Emitter - Base Voltage	V <sub>EBO</sub>	5	
Collector Current - Continuous	I <sub>C</sub>	150	mA
Base Current	I <sub>B</sub>	50	
Collector Power Dissipation	P <sub>C</sub>	625	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>CBO</sub>	I <sub>C</sub> = 100μA, I <sub>E</sub> = 0	60			V
Collector-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 1 mA, I <sub>B</sub> =0	50			
Emitter-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 100μA, I <sub>C</sub> = 0	5			
Collector-base cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 60 V, I <sub>E</sub> = 0			0.1	uA
Emitter cut-off current	I <sub>EBO</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	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 6V, I <sub>C</sub> =2mA	70		700	
		V <sub>CE</sub> = 6V, I <sub>C</sub> =150mA	25			
Base intrinsic resistance	r <sub>bb'</sub>	V <sub>CB</sub> = 10V, I <sub>C</sub> = -1mA, f=30MHz		50		Ω
Noise Figure	NF	V <sub>CE</sub> = 6V, I <sub>C</sub> = 0.1mA, R <sub>G</sub> =10KΩ, f=3MHz			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>E</sub> = -1mA	80			MHz

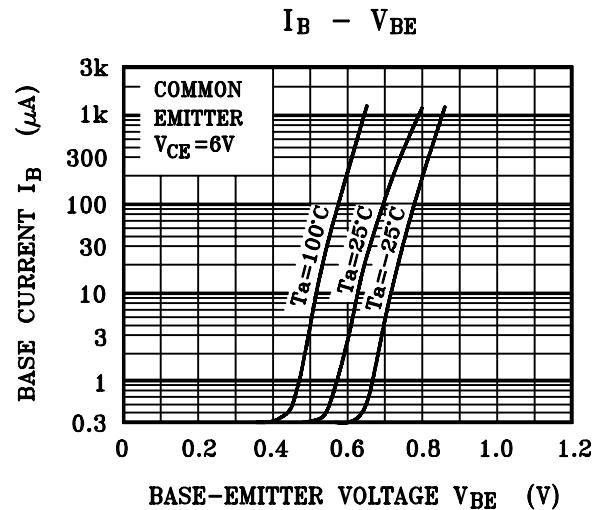
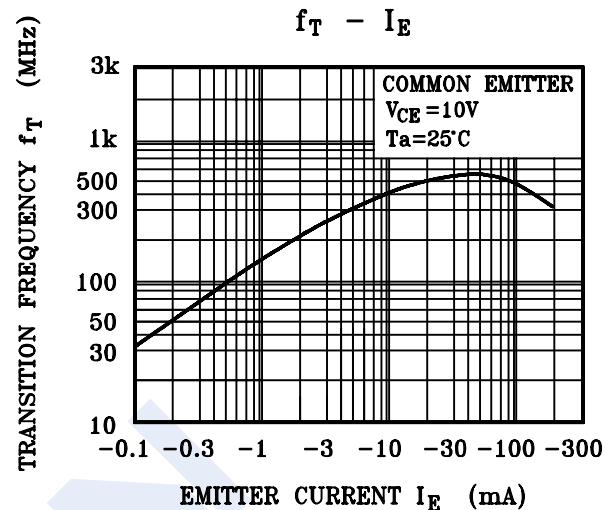
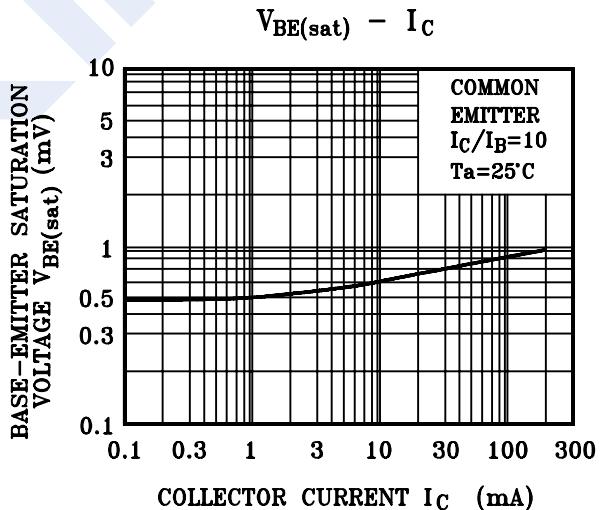
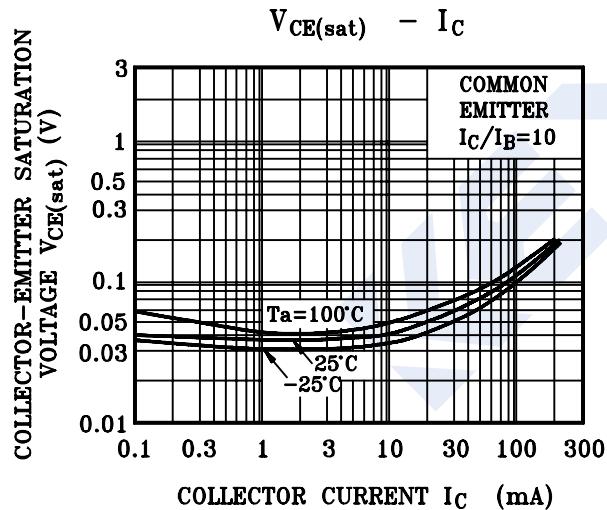
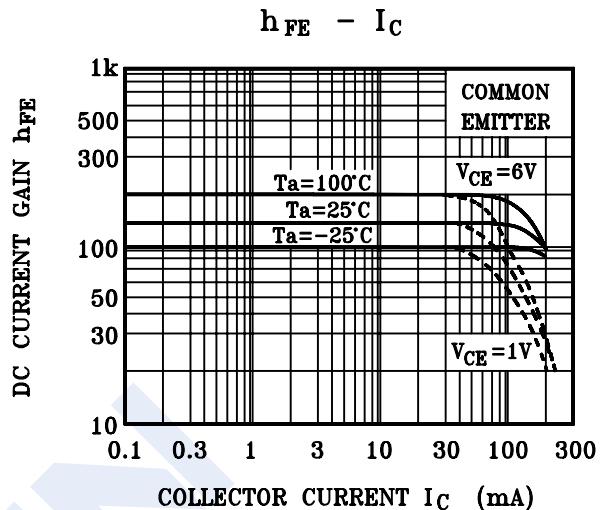
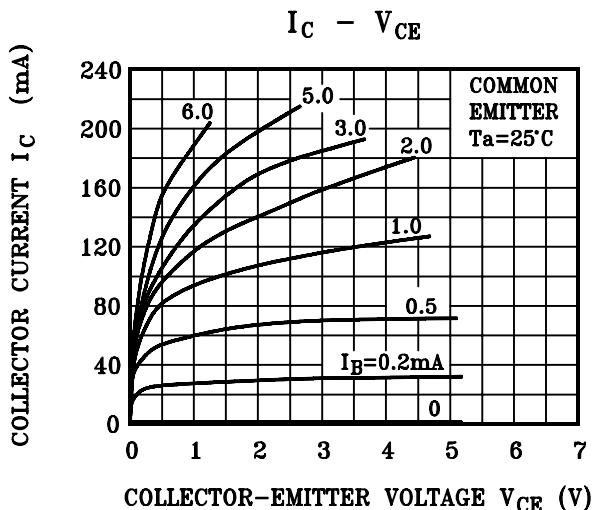
**■ Classification of hfe(1)**

Type	KTC3198-O	KTC3198-Y	KTC3198-GR	KTC3198-BL
Range	70-140	120-240	200-400	300-700

## NPN Transistors

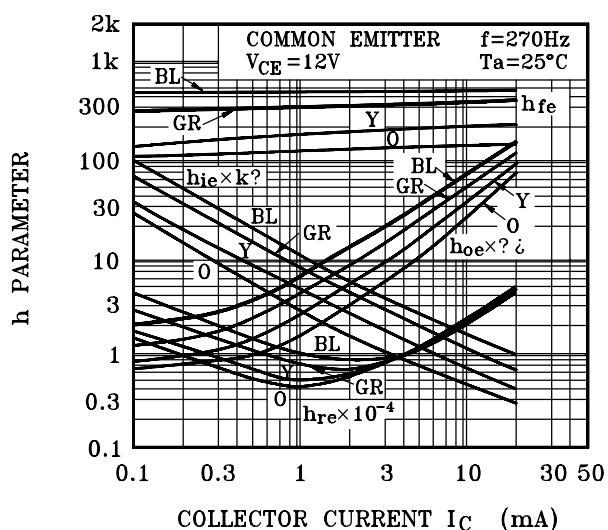
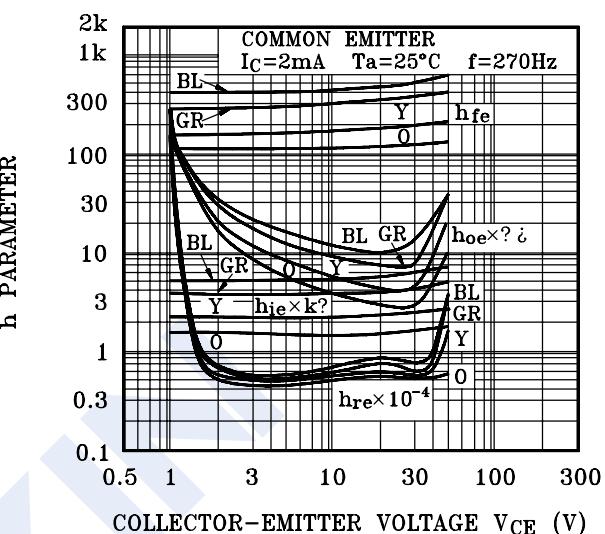
## KTC3198

## ■ Typical Characteristics



**NPN Transistors****KTC3198**

## ■ Typical Characteristics

**h PARAMETER -  $I_C$** **h PARAMETER -  $V_{CE}$**  **$P_C - T_a$** 