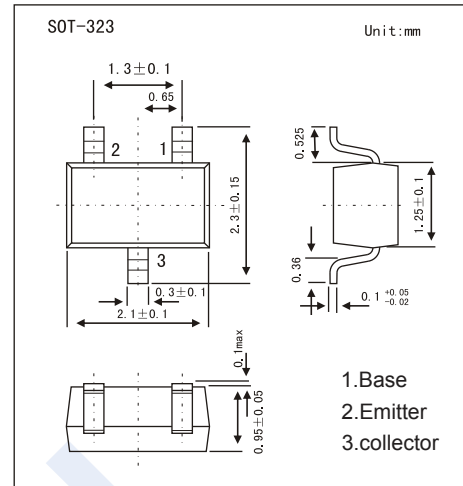


NPN Transistors

KTC4075

■ Features

- Excellent hFE Linearity
- Low Noise
- Complementary to KTA2014

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	60	V
Collector - Emitter Voltage	V_{CE0}	50	
Emitter - Base Voltage	V_{EB0}	5	
Collector Current - Continuous	I_c	150	mA
Base Current	I_B	30	
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_c = 100\mu\text{A}$, $I_E = 0$	60			V
Collector- emitter breakdown voltage	V_{CE0}	$I_c = 1\text{ mA}$, $I_B = 0$	50			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100\mu\text{A}$, $I_c = 0$	5			
Collector-base cut-off current	I_{CB0}	$V_{CB} = 60\text{V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EB0}	$V_{EB} = 5\text{V}$, $I_c = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 100\text{mA}$, $I_B = 10\text{mA}$			0.25	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_c = 100\text{mA}$, $I_B = 10\text{mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 6\text{V}$, $I_c = 2\text{mA}$	70		700	
Noise Figure	NF	$V_{CE} = 6\text{V}$, $I_c = 0.1\text{ mA}$, $R_g = 10\text{ K}\Omega$, $f = 1\text{KHz}$			10	dB
Collector output capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$			3.5	pF
Transition frequency	f_T	$V_{CE} = 10\text{V}$, $I_c = 1\text{mA}$	80			MHz

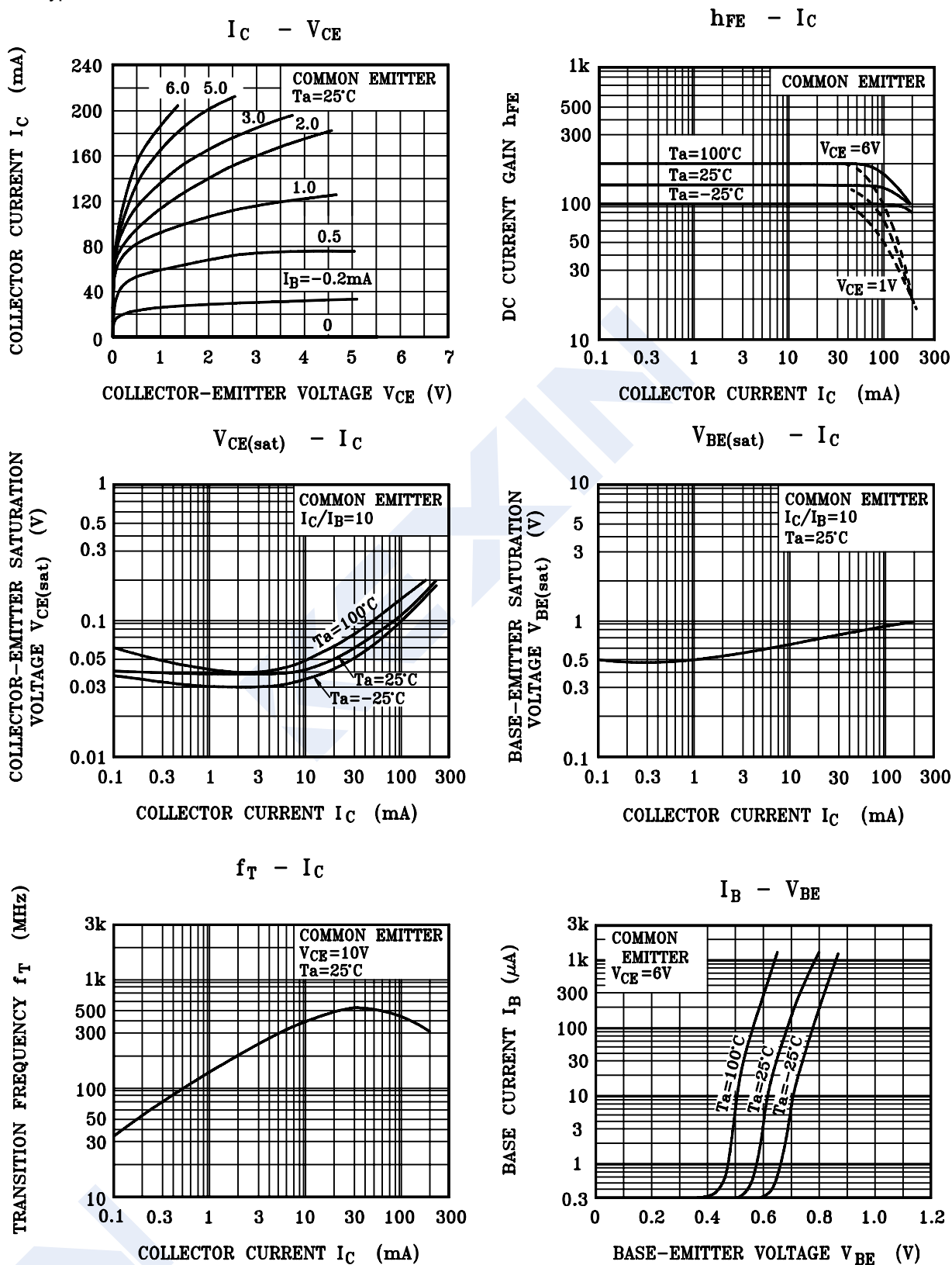
■ Classification of h_{fe}

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

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KTC4075

■ Typical Characteristics



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■ Typical Characteristics

