

**FEATURES**

- Excellent hFE linearity
- High hFE
- Low Noise
- Complementary to KTA2014



**KTC4075 (NPN)**



**Maximum Ratings (Ta=25 °C unless otherwise noted)**

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V <sub>CBO</sub>	60	V
Collector-Emitter Voltage	V <sub>CEO</sub>	50	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current -Continuous	I <sub>C</sub>	0.15	A
Collector Power dissipation	P <sub>C</sub>	0.1	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55to +150	°C

**ELECTRICAL CHARACTERISTICS ( @ Ta=25 °C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	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> = 1mA, I <sub>B</sub> =0	50		V
Emitter-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 100μA, I <sub>C</sub> =0	5		V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0		0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0		0.1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 6V, I <sub>C</sub> =2mA	70	700	
Collector-emitter saturation voltage	V <sub>CEsat</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> = 10mA		0.25	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> = 1mA	80		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CE</sub> =10V, I <sub>E</sub> =0, f=1MHz		3.5	pF
Noise figure	NF	V <sub>CE</sub> =6V, I <sub>E</sub> =0.1mA, f=1KHz, R <sub>G</sub> =10K		10	dB

**CLASSIFICATION OF hFE**

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700
Marking	LO	LY	LGR	LBL

**KTC4075** Typical Characteristics

