

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 _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	50	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current -Continuous	I _C	0.15	A
Collector Power dissipation	P _C	0.1	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55to +150	°C

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

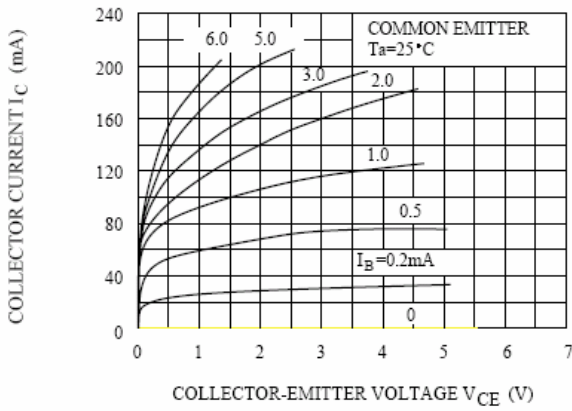
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V _{CBO}	I _C = 100μA, I _E =0	60		V
Collector-emitter breakdown voltage	V _{CEO}	I _C = 1mA, I _B =0	50		V
Emitter-base breakdown voltage	V _{EBO}	I _E = 100μA, I _C =0	5		V
Collector cut-off current	I _{CB0}	V _{CB} =60V, I _E =0		0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0		0.1	μA
DC current gain	h _{FE}	V _{CE} = 6V, I _C =2mA	70	700	
Collector-emitter saturation voltage	V _{CEsat}	I _C =100mA, I _B = 10mA		0.25	V
Transition frequency	f _T	V _{CE} =10V, I _C = 1mA	80		MHz
Collector output capacitance	C _{ob}	V _{CE} =10V, I _E =0, f=1MHz		3.5	pF
Noise figure	NF	V _{CE} =6V, I _E =0.1mA, f=1KHz, R _G =10K		10	dB

CLASSIFICATION OF hFE

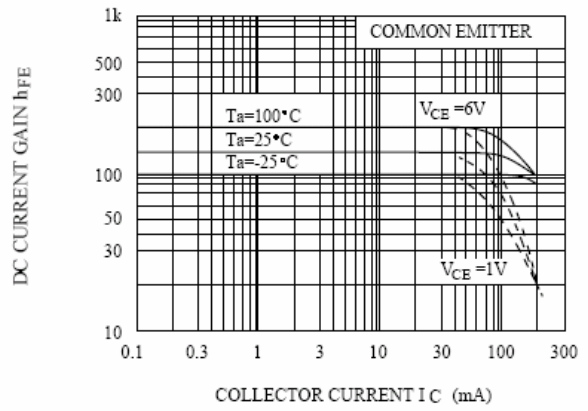
Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700
Marking	LO	LY	LGR	LBL

KTC4075 Typical Characteristics

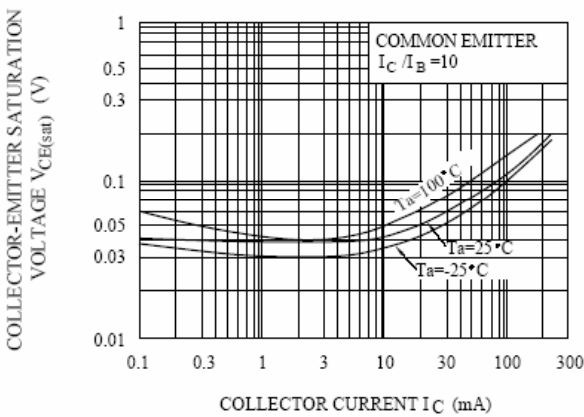
$I_C - V_{CE}$



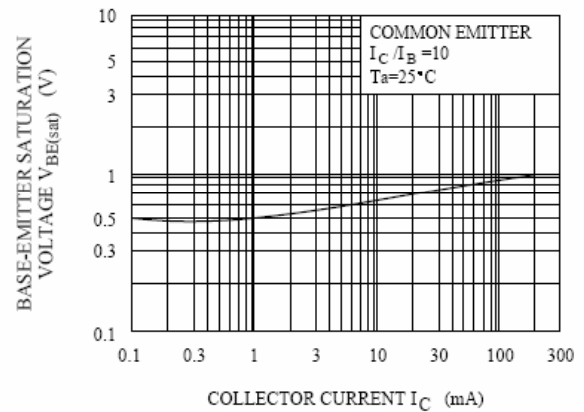
$h_{FE} - I_C$



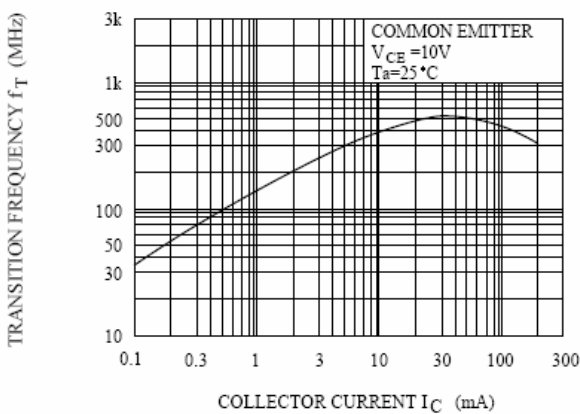
$V_{CE(sat)} - I_C$



$V_{BE(sat)} - I_C$



$f_T - I_C$



$I_B - V_{BE}$

