

**M·C·C·**

Micro Commercial Components™



Micro Commercial Components  
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**KTC4075-O  
KTC4075-Y  
KTC4075-GR  
KTC4075-BL**

## Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Complementary to KTA2014
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

Symbol	Rating	Rating	Unit
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	150	mA
$P_C$	Collector power dissipation	100	mW
$T_J$	Junction Temperature	150	°C
$T_{STG}$	Storage Temperature	-55 to +150	°C

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
<b>OFF CHARACTERISTICS</b>					
$I_{CBO}$	Collector Cutoff Current ( $V_{CB} = 60$ Vdc)	---	---	100	nAdc
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB} = 5.0$ Vdc)	---	---	100	nAdc

## ON CHARACTERISTICS

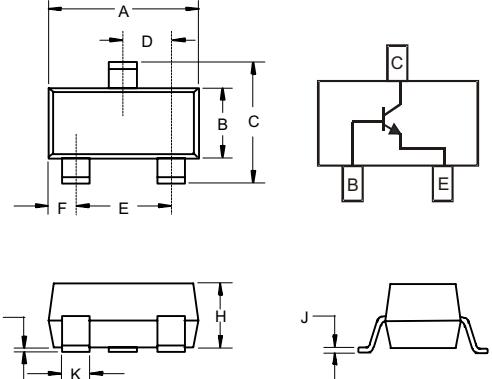
$BV_{CBO}$	Collector-base breakdown voltage ( $I_C = 100\mu$ Adc)	60	---	---	Vdc
$BV_{CEO}$	Collector-emitter breakdown voltage ( $I_C = 1$ mAdc)	50	---	---	Vdc
$BV_{EBO}$	Emitter-base breakdown voltage ( $I_E = 100\mu$ Adc)	5	---	---	Vdc
$h_{FE}$	DC Current Gain ( $I_C = 2$ mAdc, $V_{CE} = 6.0$ Vdc)	70	---	700	---
$V_{CE(sat)}$	Collector Saturation Voltage ( $I_C = 100$ mAdc, $I_E = 10.0$ mAdc)	---	---	0.25	Vdc
$C_{ob}$	Output Capacitance ( $V_{CE} = 10.0$ Vdc, $I_E = 0$ , $f = 1.0$ MHz)	---	---	3.5	pF
$f_T$	Gain Bandwidth product ( $V_{CE} = 10$ Vdc, $I_C = 1$ mAdc)	---	80	---	MHz

## $h_{FE}$ CLASSIFICATION

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

## NPN Plastic-Encapsulate Transistors

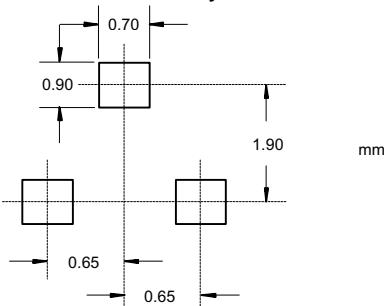
### SOT-323



### DIMENSIONS

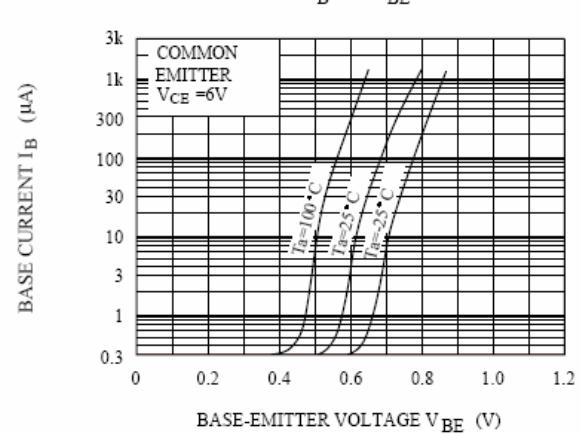
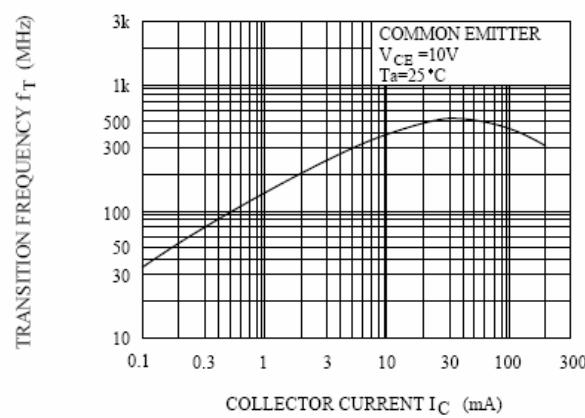
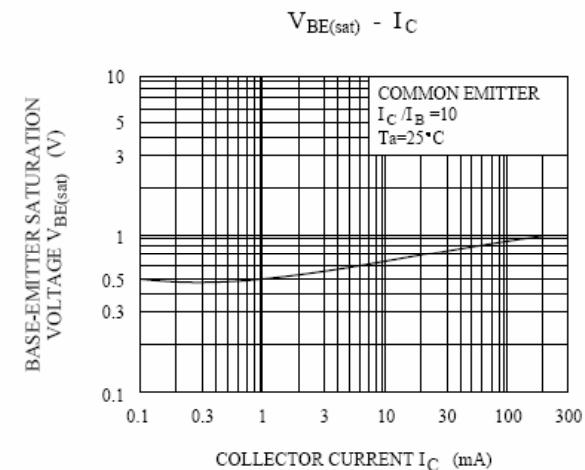
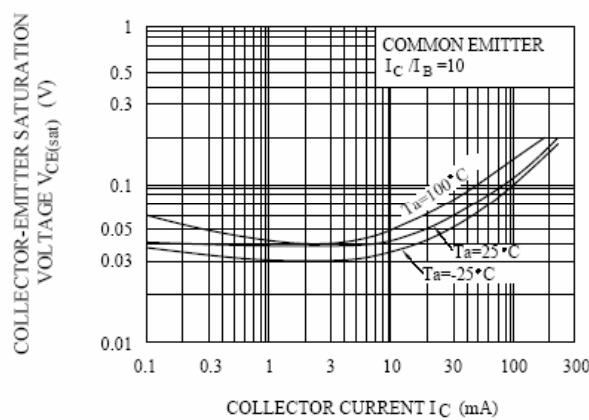
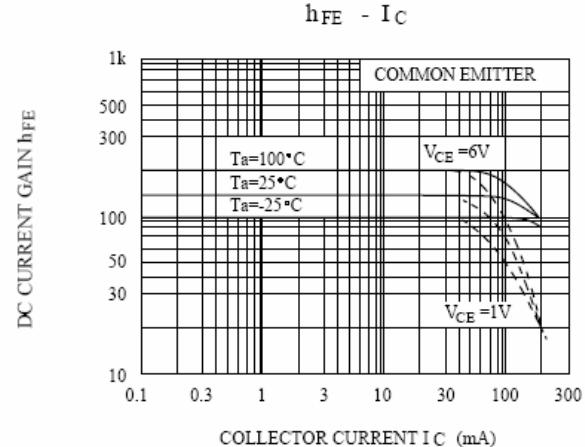
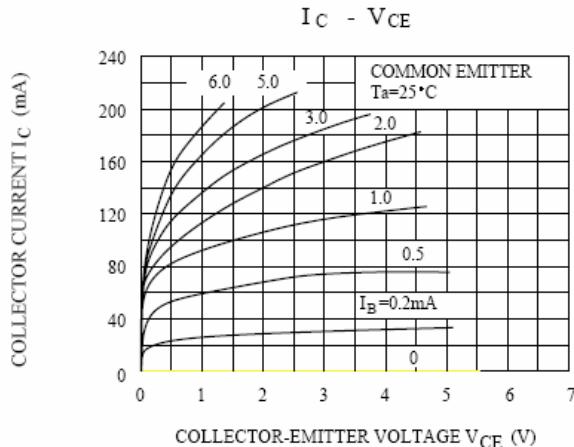
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 Nominal		0.65 Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.012	.016	.30	.40	

### Suggested Solder Pad Layout



KTC4075  
Typical Characteristics

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KTC4075

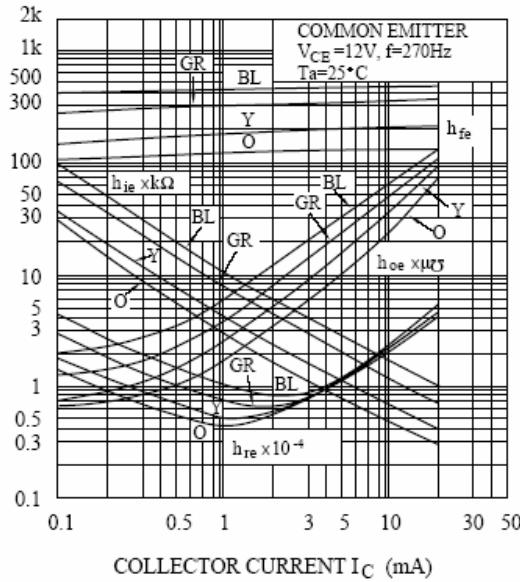
## Typical Characteristics

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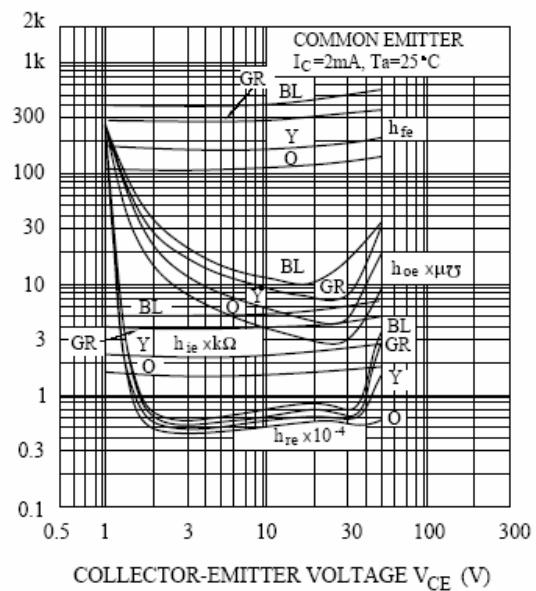
**h PARAMETER -  $I_C$**

h PARAMETER



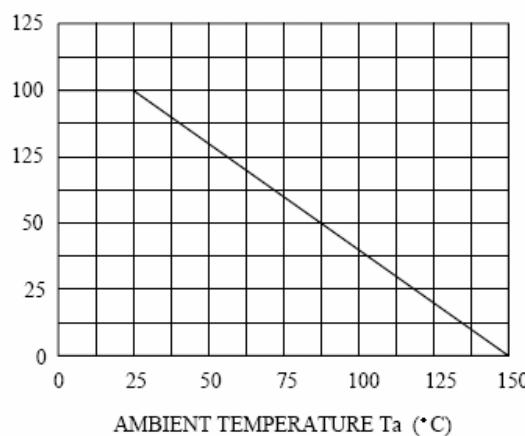
**h PARAMETER -  $V_{CE}$**

h PARAMETER



**$P_C$  -  $T_a$**

COLLECTOR POWER DISSIPATION  $P_C$  (mW)



<sup>TM</sup>

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## Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/ Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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