



**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
- Moisture Sensitivity Level 1

**Maximum Ratings**

Symbol	Rating	Rating	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	50	V
V <sub>CBO</sub>	Collector-Base Voltage	60	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current	150	mA
P <sub>C</sub>	Collector power dissipation	100	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Symbol	Parameter	Min	Typ	Max	Units
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**OFF CHARACTERISTICS**

I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> = 60Vdc)	---	---	100	nAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> = 5.0Vdc)	---	---	100	nAdc

**ON CHARACTERISTICS**

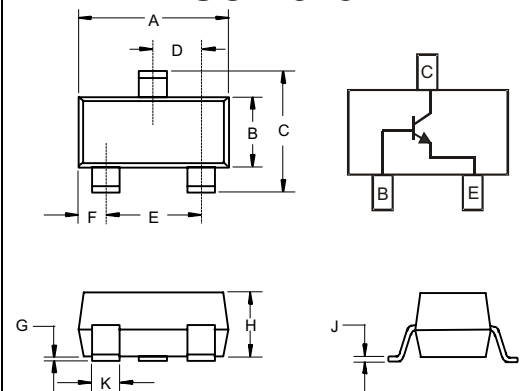
BV <sub>CBO</sub>	Collector-base breakdown voltage (I <sub>C</sub> =100µAdc)	60	---	---	Vdc
BV <sub>CEO</sub>	Collector-emitter breakdown voltage (I <sub>C</sub> = 1mAdc)	50	---	---	Vdc
BV <sub>EBO</sub>	Emitter-base breakdown voltage (I <sub>E</sub> =100µAdc)	5	---	---	Vdc
h <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =2mAdc, V <sub>CE</sub> = 6.0Vdc)	70	---	700	---
V <sub>CE(sat)</sub>	Collector Saturation Voltage (I <sub>C</sub> =100mAdc, I <sub>B</sub> =10.0mAdc)	---	---	0.25	Vdc
C <sub>ob</sub>	Output Capacitance (V <sub>CE</sub> = 10.0Vdc, I <sub>E</sub> =0, f=1.0MHz)	---	---	3.5	pF
f <sub>T</sub>	Gain Bandwidth product (V <sub>CE</sub> =10Vdc, I <sub>C</sub> =1mAdc)	---	80	---	MHz

**h<sub>FE</sub> CLASSIFICATION**

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

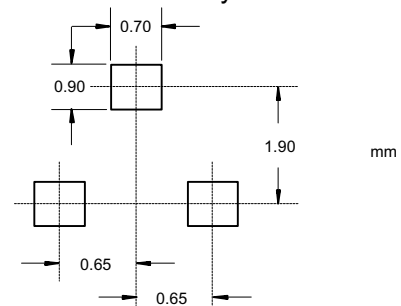
**NPN  
 Plastic-Encapsulate  
 Transistors**

**SOT-323**



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		0.65Nominal		
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	

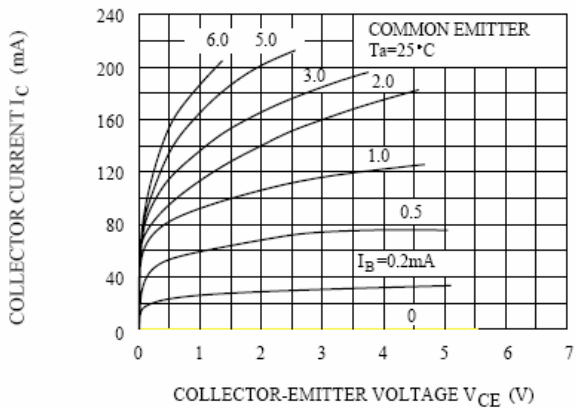
**Suggested Solder  
 Pad Layout**



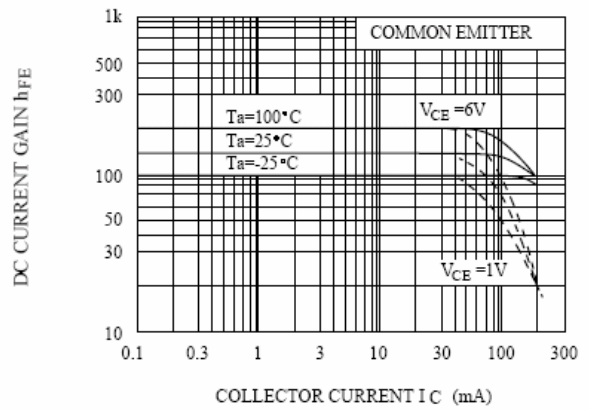
# KTC4075

## Typical Characteristics

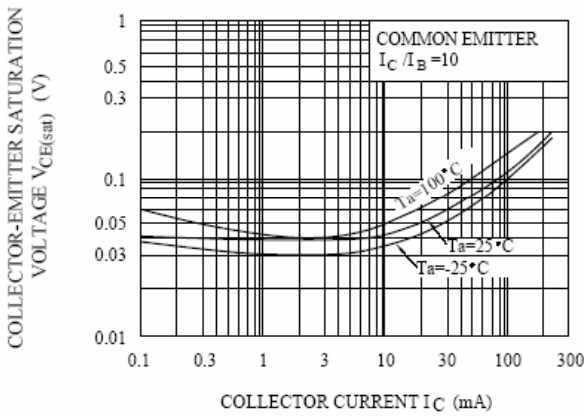
$I_C - V_{CE}$



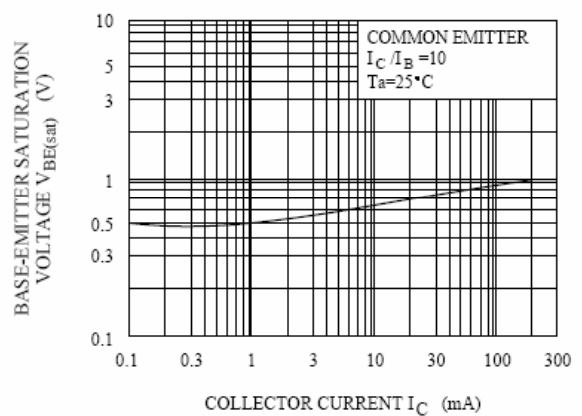
$h_{FE} - I_C$



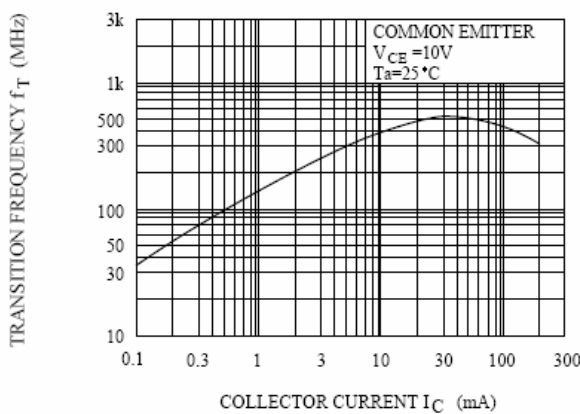
$V_{CE(sat)} - I_C$



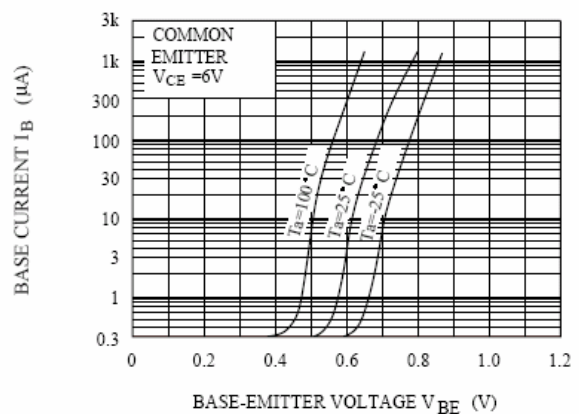
$V_{BE(sat)} - I_C$



$f_T - I_C$



$I_B - V_{BE}$



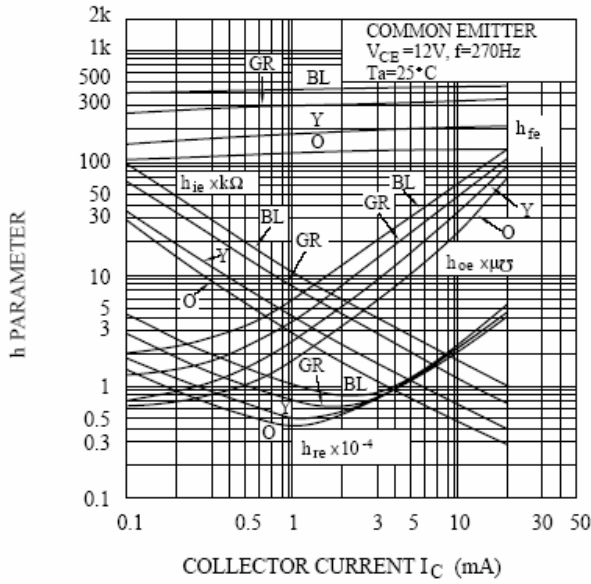
KTC4075

Typical Characteristics

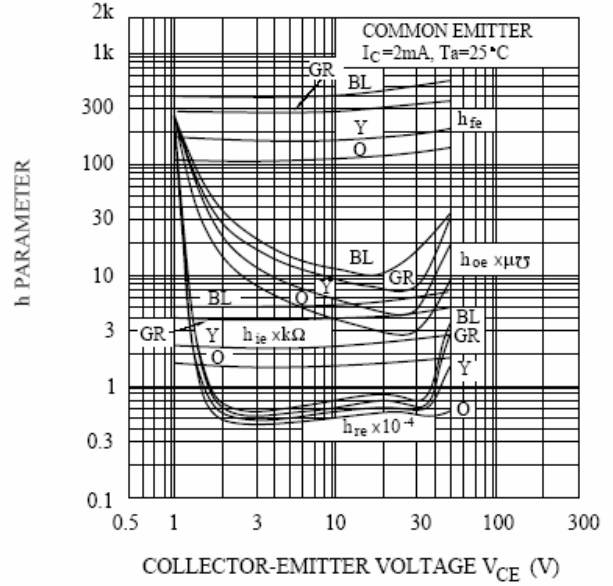


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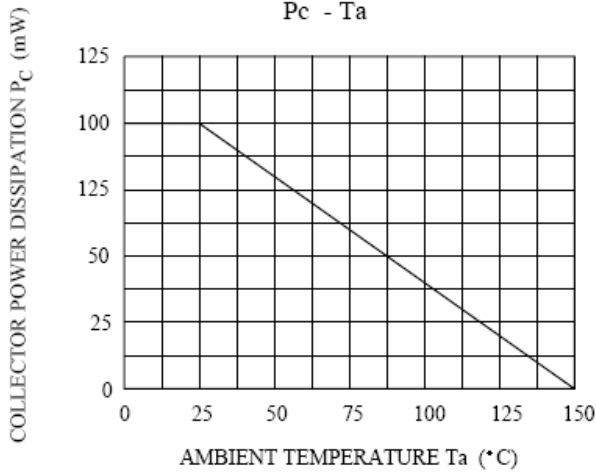
h PARAMETER -  $I_C$



h PARAMETER -  $V_{CE}$



$P_c - T_a$





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### Ordering Information :

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

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