



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
- Moisture 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
OFF CHARACTERISTICS					
I _{CBO}	Collector Cutoff Current (V _{CB} = 60Vdc)	---	---	100	nAdc
I _{EBO}	Emitter Cutoff Current (V _{EB} = 5.0Vdc)	---	---	100	nAdc

ON CHARACTERISTICS

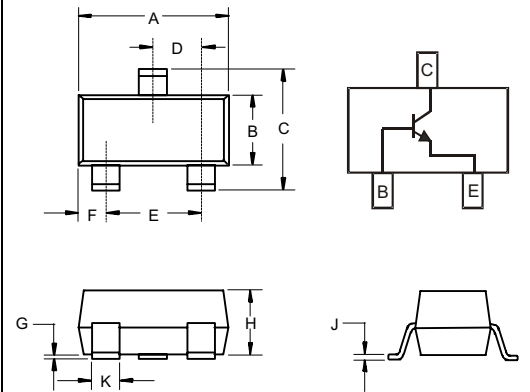
BV _{CBO}	Collector-base breakdown voltage (I _C =100µAdc)	60	---	---	Vdc
BV _{CEO}	Collector-emitter breakdown voltage (I _C = 1mAdc)	50	---	---	Vdc
BV _{EBO}	Emitter-base breakdown voltage (I _E =100µAdc)	5	---	---	Vdc
h _{FE}	DC Current Gain (I _C =2mAdc, V _{CE} = 6.0Vdc)	70	---	700	---
V _{CE(sat)}	Collector Saturation Voltage (I _C =100mAdc, I _B =10.0mAdc)	---	---	0.25	Vdc
C _{ob}	Output Capacitance (V _{CE} = 10.0Vdc, I _E =0, f=1.0MHz)	---	---	3.5	pF
f _T	Gain Bandwidth product (V _{CE} =10Vdc, I _C =1mAdc)	---	80	---	MHz

h_{FE} CLASSIFICATION

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

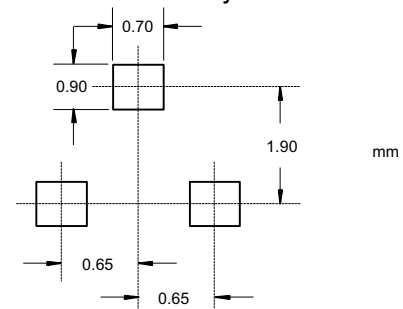
NPN
Plastic-Encapsulate
Transistors

SOT-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
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	.006	.016	.15	.40	

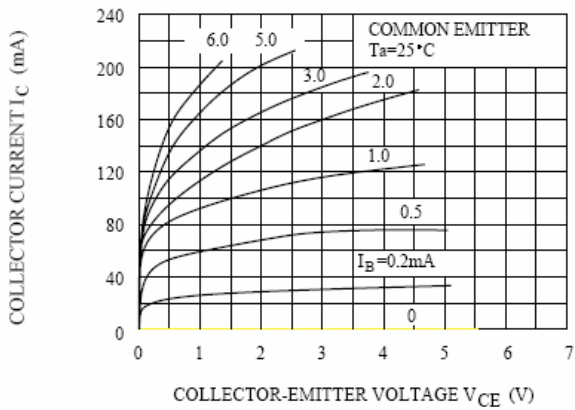
Suggested Solder Pad Layout



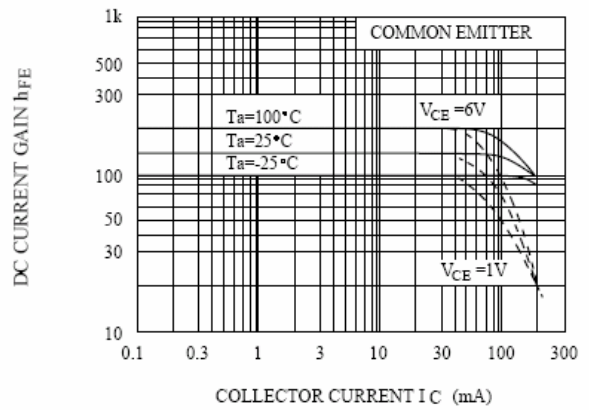
KTC4075

Typical Characteristics

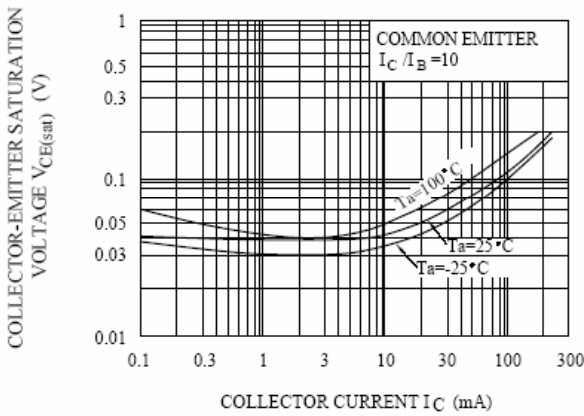
$I_C - V_{CE}$



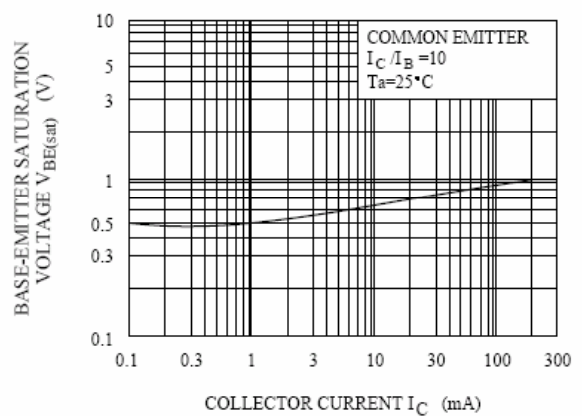
$h_{FE} - I_C$



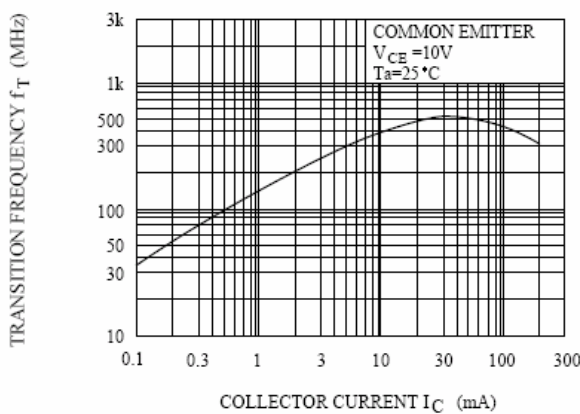
$V_{CE(sat)} - I_C$



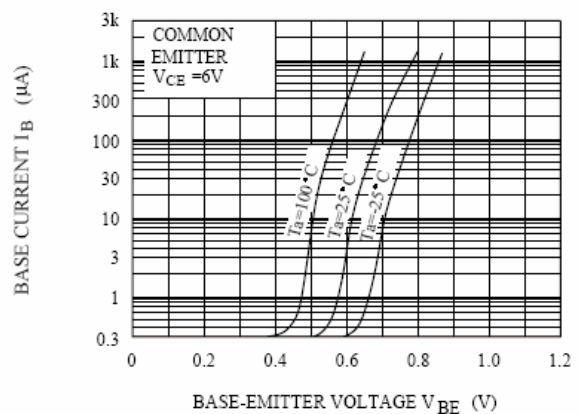
$V_{BE(sat)} - I_C$



$f_T - I_C$



$I_B - V_{BE}$



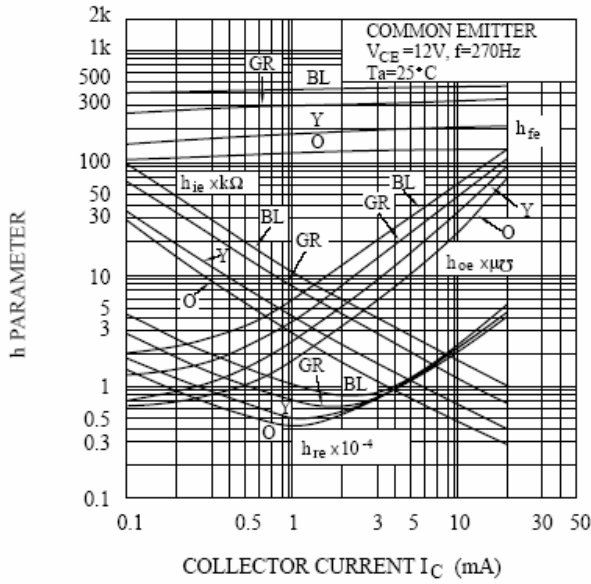
KTC4075

Typical Characteristics

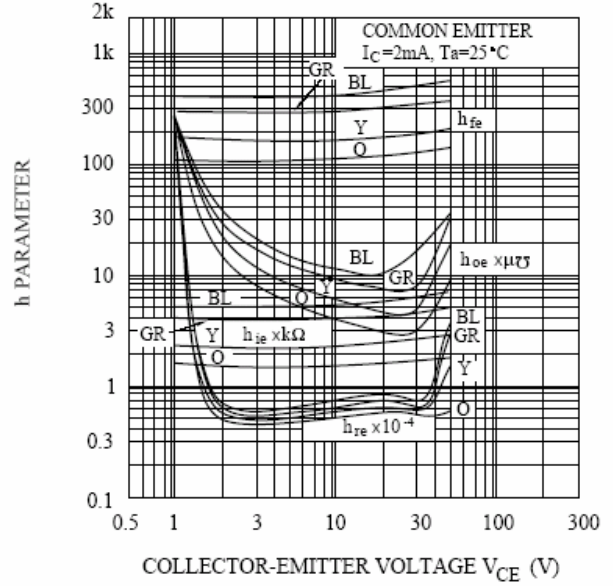


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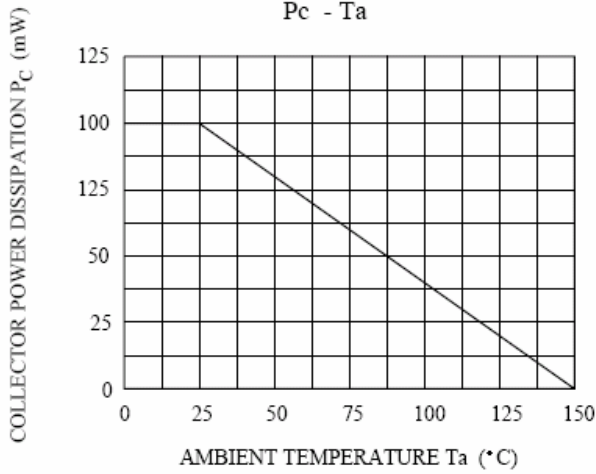
h PARAMETER - I_C



h PARAMETER - V_{CE}



$P_c - T_a$





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Ordering Information :

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

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

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