



**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 _{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

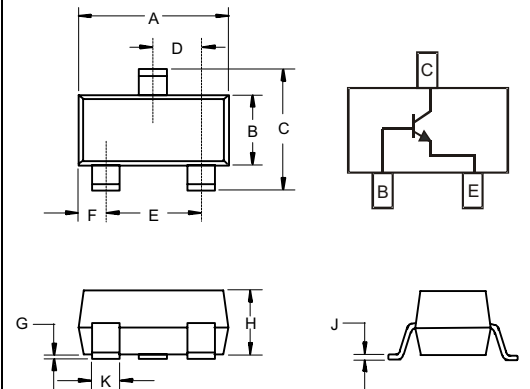
BV _{CBO}	Collector-base breakdown voltage (I _C =100µAdc)	60	---	---	Vdc
BV _{CEO}	Collector-emitter breakdown voltage (I _C = 1mAdc)	50	---	---	Vdc
BV _{EBO}	Emitter-base breakdown voltage (I _E =100µAdc)	5	---	---	Vdc
h _{FE}	DC Current Gain (I _C =2mAdc, V _{CE} = 6.0Vdc)	70	---	700	---
V _{CE(sat)}	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

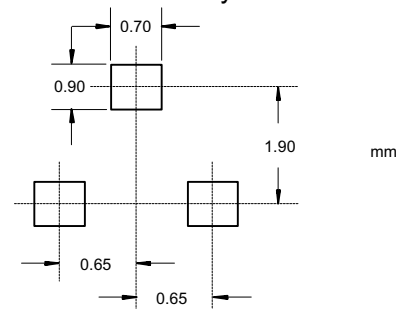
**NPN
 Plastic-Encapsulate
 Transistors**

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	.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	

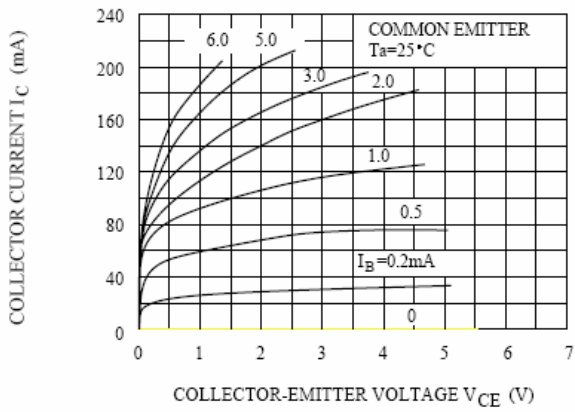
**Suggested Solder
 Pad Layout**



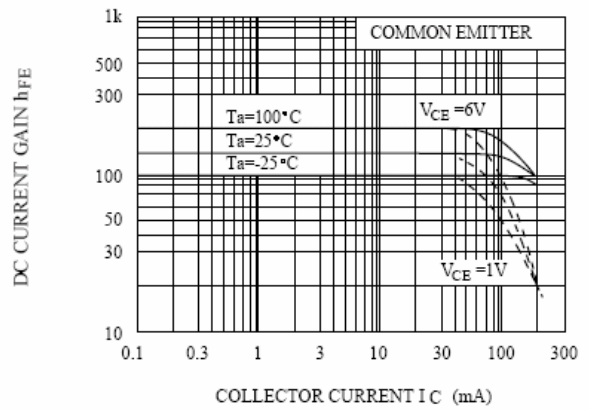
KTC4075

Typical Characteristics

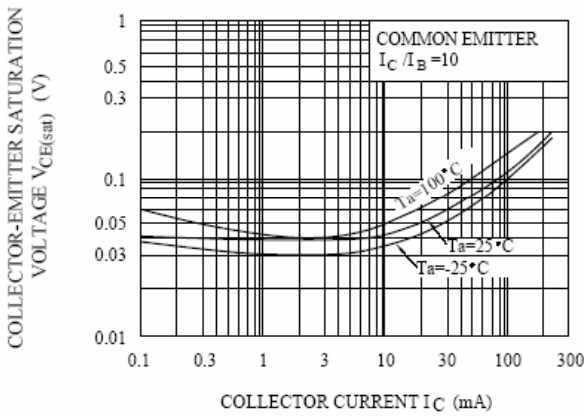
$I_C - V_{CE}$



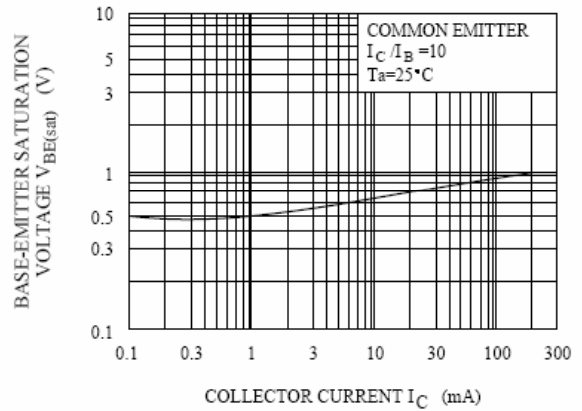
$h_{FE} - I_C$



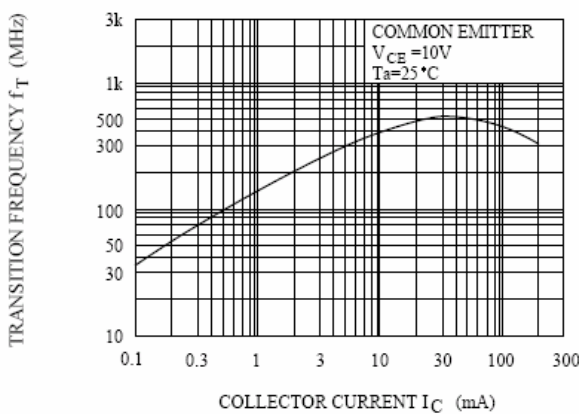
$V_{CE(sat)} - I_C$



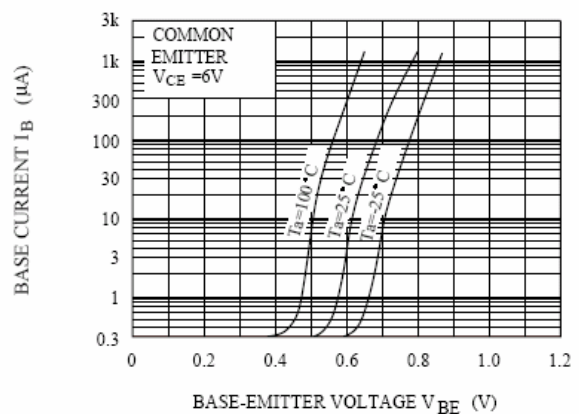
$V_{BE(sat)} - I_C$



$f_T - I_C$



$I_B - V_{BE}$



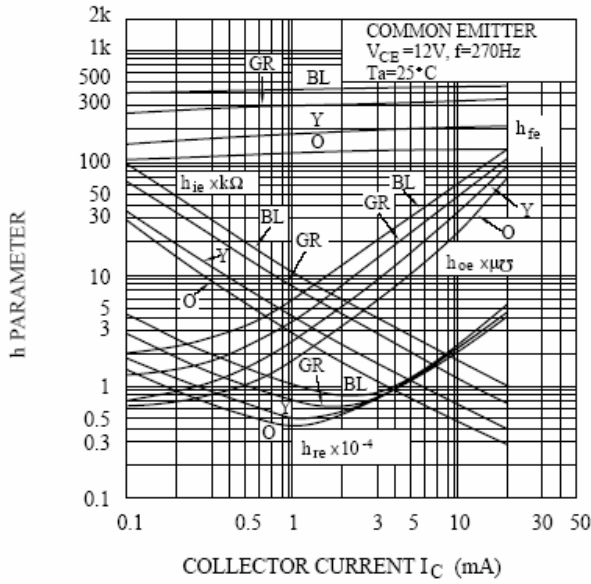
KTC4075

Typical Characteristics

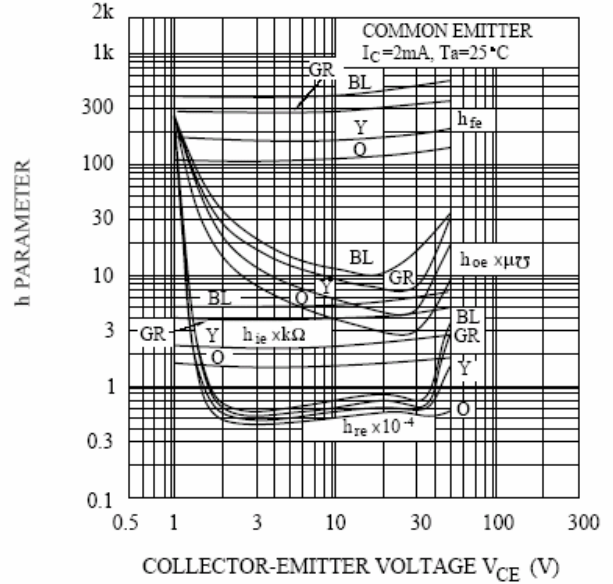


Micro Commercial Components

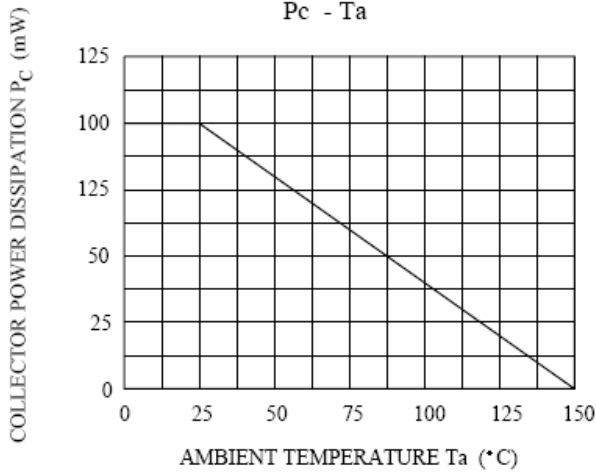
h PARAMETER - I_C



h PARAMETER - V_{CE}



$P_c - T_a$





Micro Commercial Components

Ordering Information :

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

www.mccsemi.com