

## NPN Silicon Epitaxial Planar Transistor

## KTC4075

### FEATURES

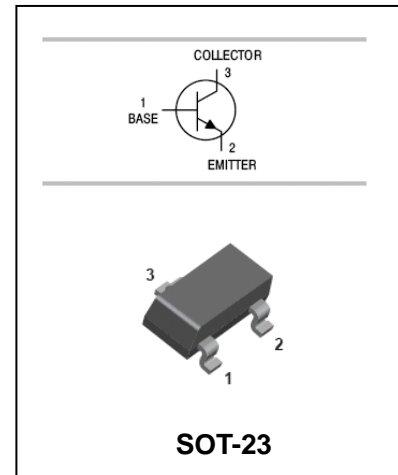
- High and excellent DC current gain.
- Complementary to KTA2014.
- Small package.



### APPLICATIONS

- General purpose application.
- Switching application.

### ORDERING INFORMATION



Type No.	Marking	Package Code
KTC4075	LO/LY/LGR/LBL	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	50	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	150	mA
I <sub>B</sub>	Base Current	30	mA
P <sub>C</sub>	Collector Power Dissipation	100	mW
T <sub>j</sub> , T <sub>stg</sub>	Junction and Storage Temperature	-55 to +150	°C



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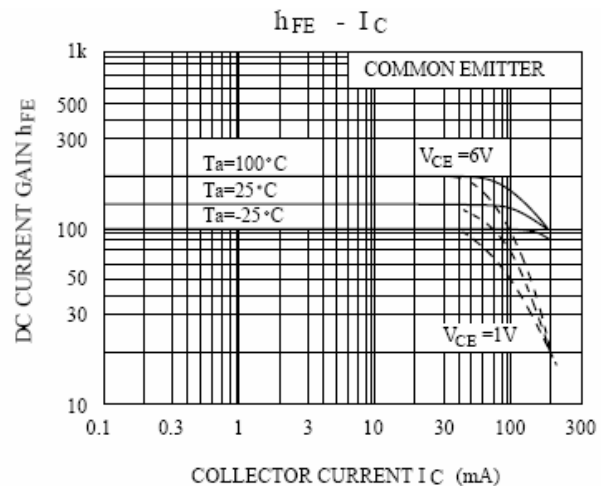
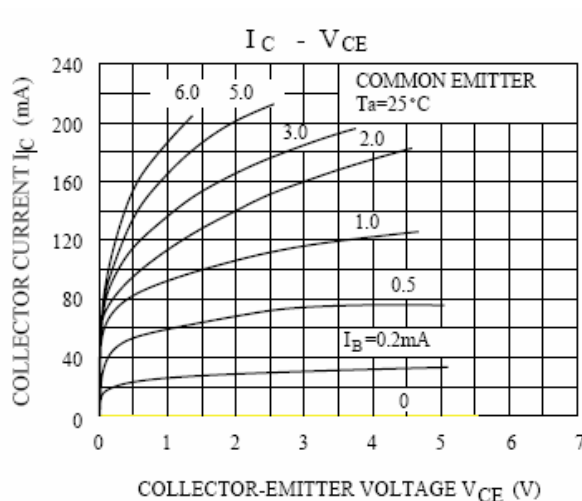
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=60V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=6V, I_C=2mA$	70		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		0.1	0.25	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=1mA$	80			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$		2.0	3.5	pF
Noise Figure	NF	$V_{CE}=6V, I_C=0.1mA, f=1kHz, R_g=10k\Omega$		1.0	10	dB

CLASSIFICATION OF  $h_{FE}$

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

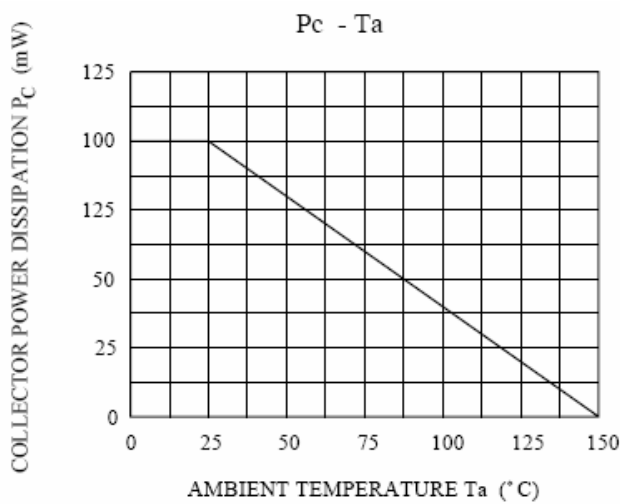
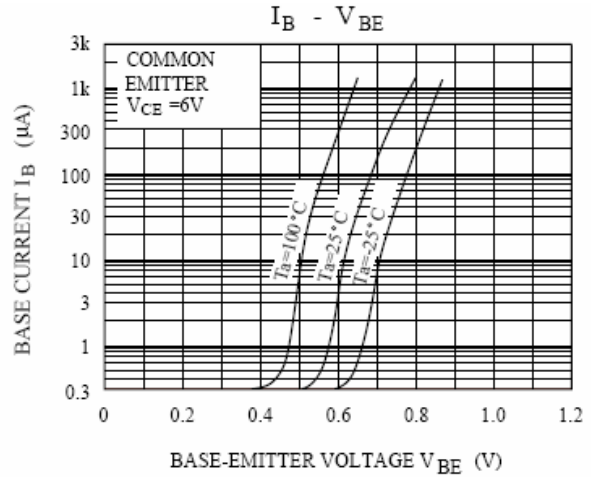
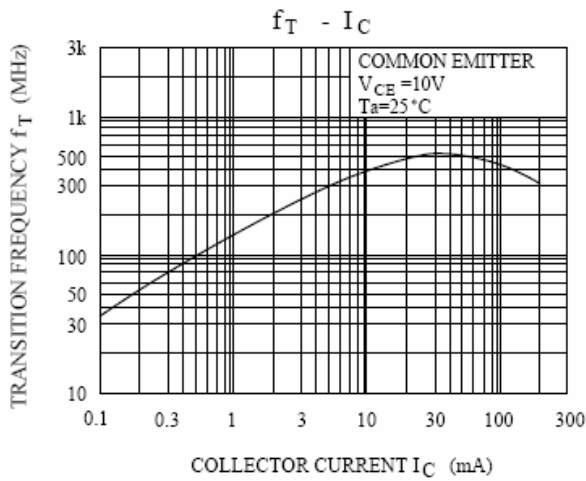
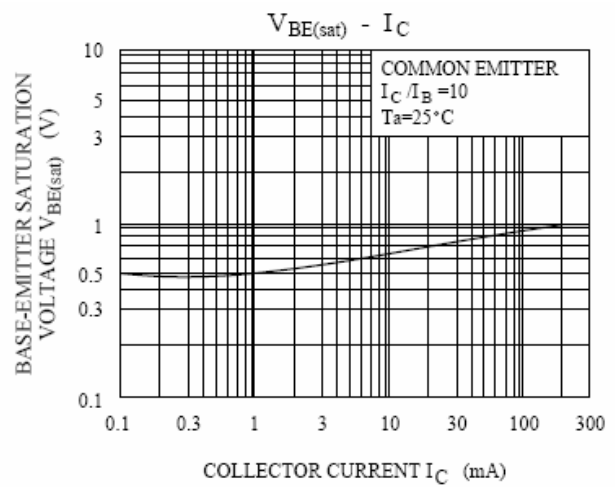
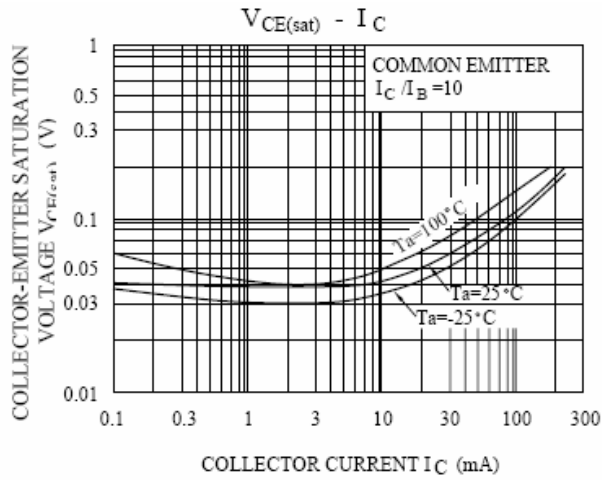
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified





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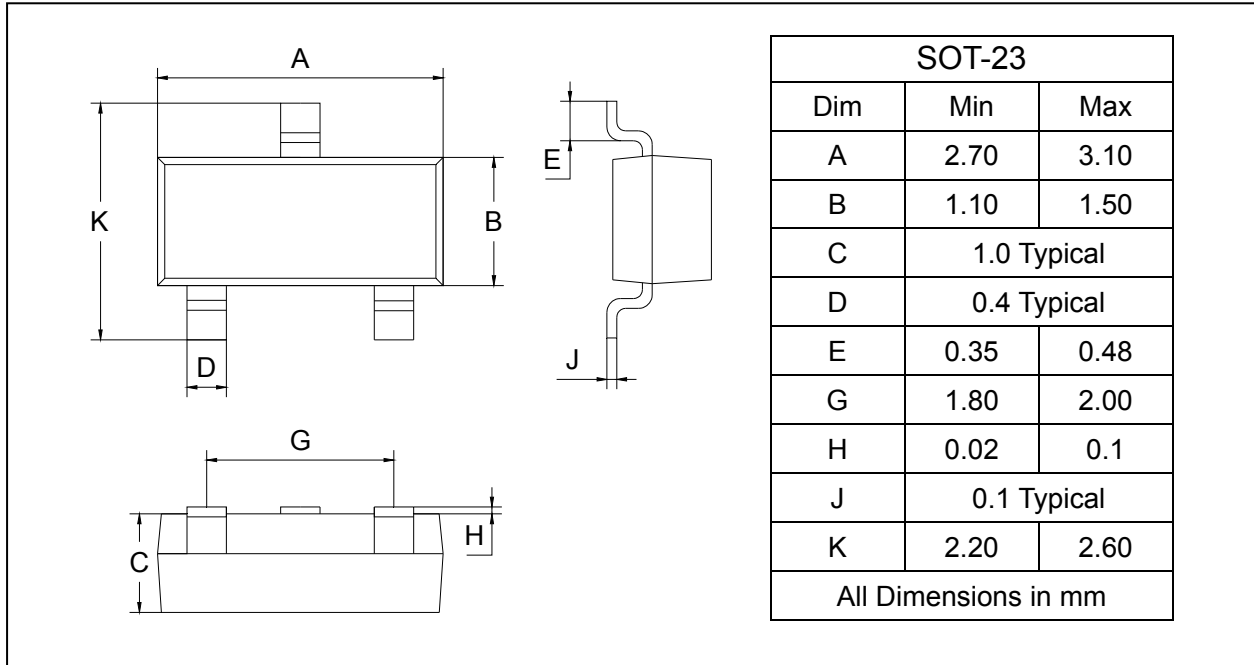
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**KTC4075**

**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-23



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
KTC4075	SOT-23	3000/Tape&Reel