

NPN Silicon Epitaxial Planar Transistor

KTC4075

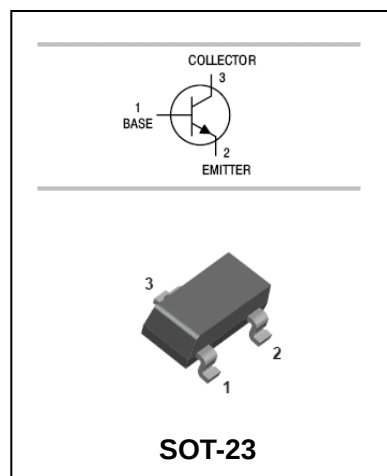
FEATURES

- High and excellent DC current gain.
- Complementary to KTA2014.
- Small package.
- RoHS compliant with Halogen-free

HF

APPLICATIONS

- General purpose application.
- Switching application.



ORDERING INFORMATION

Type No.	Marking	Package Code
KTC4075-O	LO	SOT-23
KTC4075-Y	LY	SOT-23
KTC4075-GR	LGR	SOT-23
KTC4075-BL	LBL	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	150	mA
I_B	Base Current	30	mA
P_C	Collector Power Dissipation	100	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C

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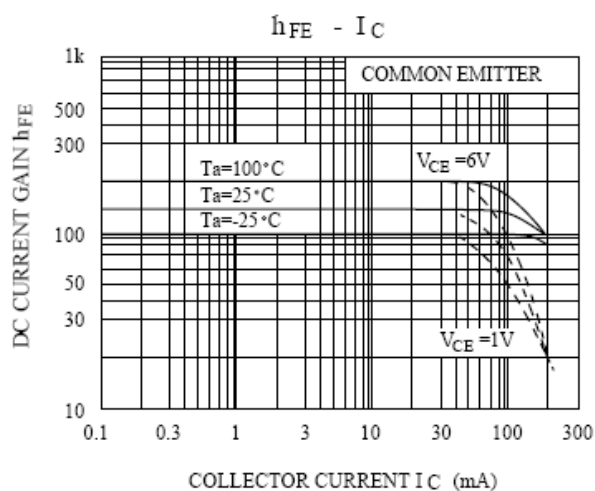
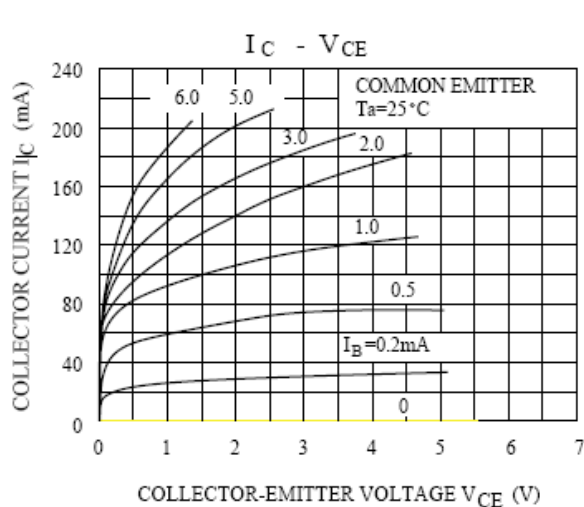
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
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}

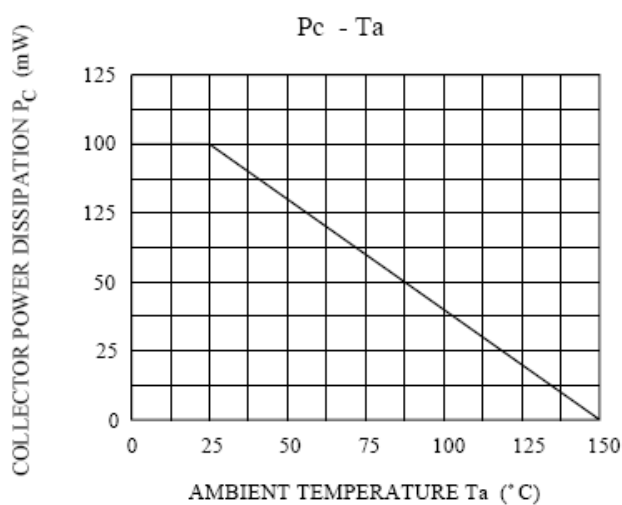
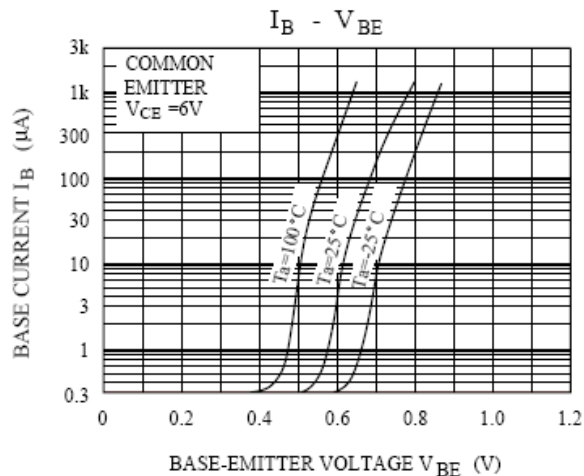
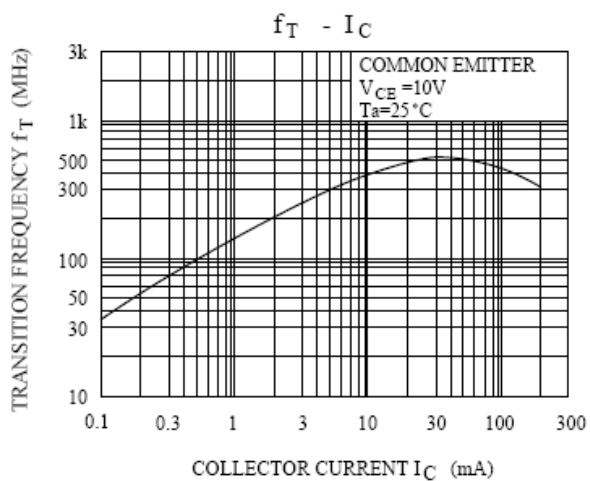
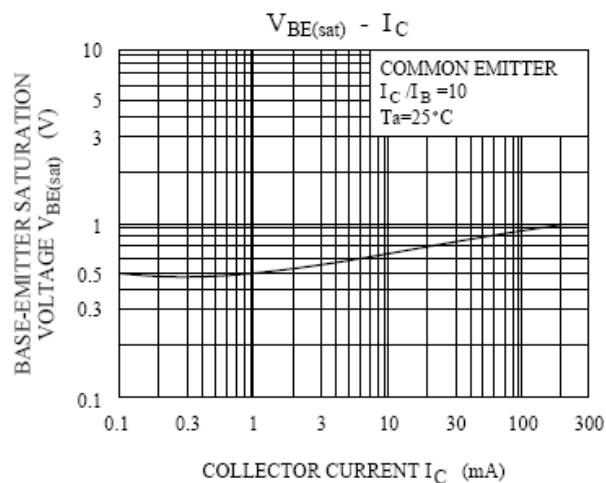
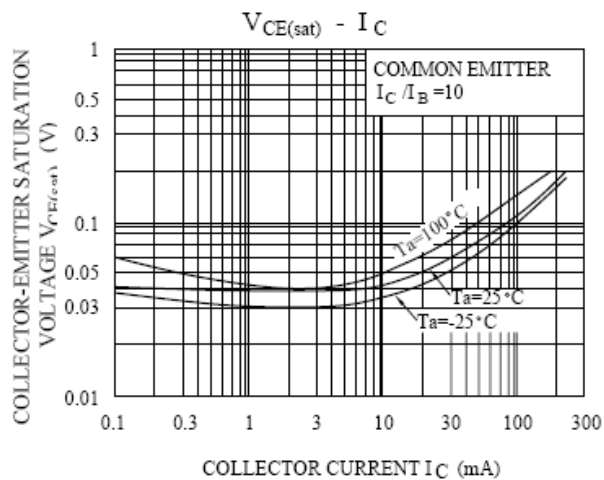
Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700
Marking	LO	LY	LGR	LBL

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



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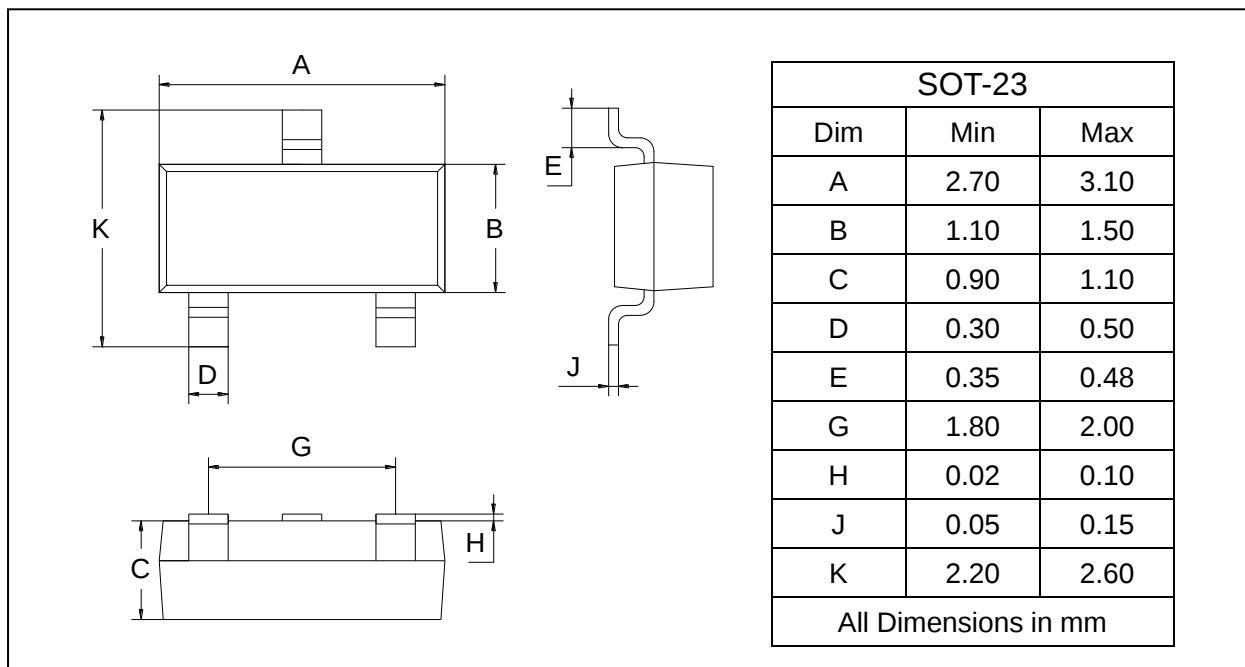
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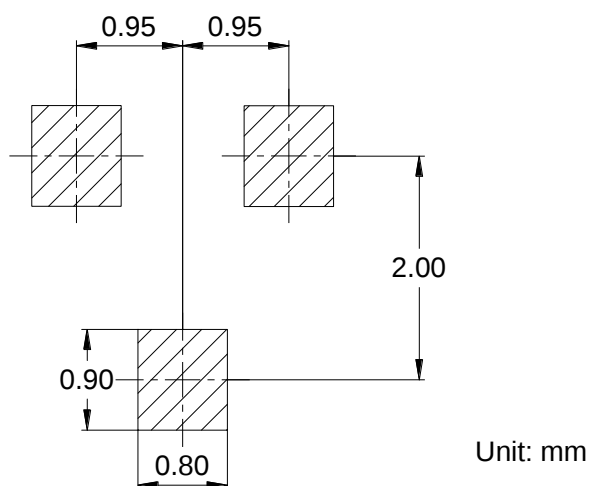
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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