

TO-92L Plastic-Encapsulate Transistors

KTA1023 TRANSISTOR (PNP)

FEATURES

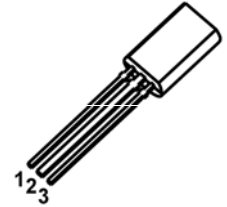
- Complementary to KTC1027

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-120	V
V _{CEO}	Collector-Emitter Voltage	-120	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.8	A
P _C	Collector Power Dissipation	1	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55to+150	°C

TO-92L

1. EMITTER
2. COLLECTER
3. BASE



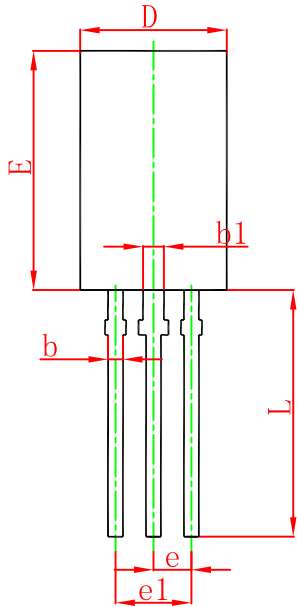
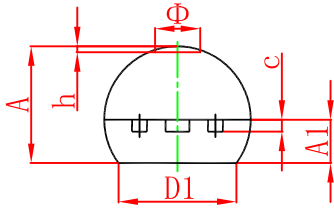
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-120			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-120			V
Emitter-Base breakdown voltage	V _{(BR)EBO}	I _E =-1mA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-120V, I _E =0			-0.1	μ A
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-0.1	μ A
DC current gain	h _{FE}	V _{CE} =-5V, I _C =-100mA	80		240	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-1.0	V
Base-emitter voltage	V _{BE}	I _C =-500mA, V _{CE} =-5V			-1.0	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-100mA		120		MHz
Collector output capacitance	C _{ob}	V _{CE} =-10V, I _E =0, f=1MHz			40	pF

CLASSIFICATION OF h_{FE}

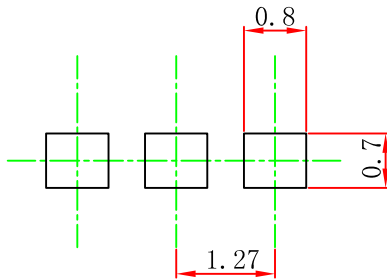
Rank	O	Y
Range	80-160	120-240

TO-92L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	3.750	4.050	0.148	0.159
A1	1.280	1.580	0.050	0.062
b	0.380	0.550	0.015	0.022
b1	0.620	0.780	0.024	0.031
c	0.350	0.450	0.014	0.018
D	4.750	5.050	0.187	0.199
D1	4.000		0.157	
E	7.850	8.150	0.309	0.321
e	1.270 TYP.		0.050 TYP.	
e1	2.440	2.640	0.096	0.104
L	13.800	14.200	0.543	0.559
Φ		1.600		0.063
h	0.000	0.300	0.000	0.012

TO-92L Suggested Pad Layout



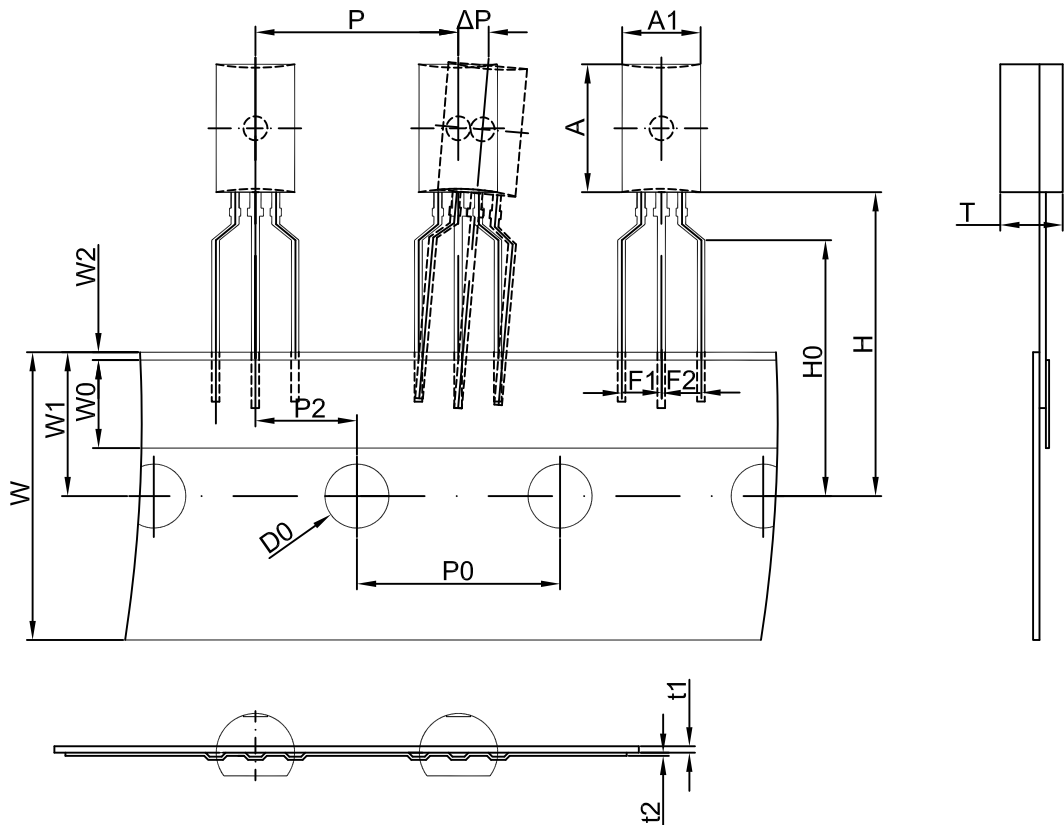
Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

NOTICE

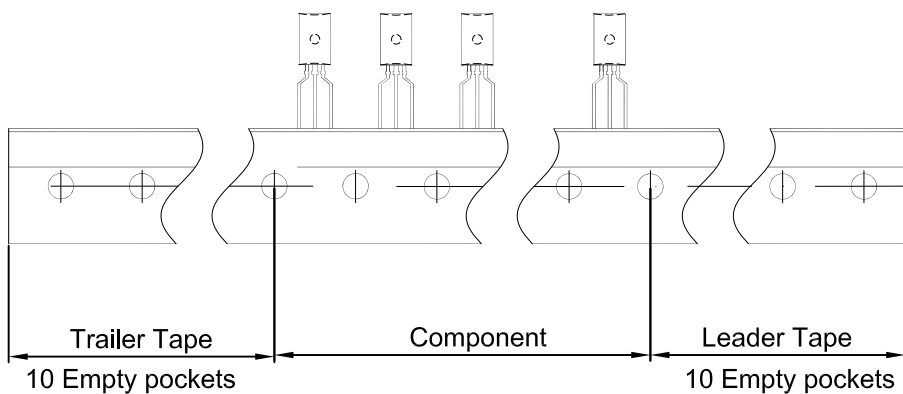
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TO-92L PACKAGE TAPING DIMENSION



Dimensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.9±0.15	8.0±0.15	3.9±0.15	12.7±0.3	12.7±0.2	6.35±0.3	2.5±0.3	2.5±0.3	18.0+1.0/-0.5
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0±0.5	9.0±0.5	1.0 MAX.	19.0+2.0/-1.0	16.0±0.5	4.0±0.2	0.4±0.05	0.2±0.05	0 ± 1.0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92L	2000 pcs	333×203×42	20,000 pcs	493×400×264