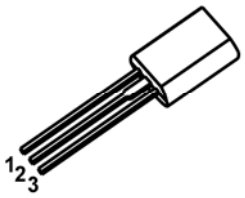
JCET

JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92MOD Plastic-Encapsulate Transistors

KTA1281 TRANSISTOR (PNP)

TO-92MOD



FEATURES

- Low Collector Saturation Voltage: $V_{CE(sat)}$=-0.5V(Max.)(I_C=-1A)
- High Speed Switching time: t_{stg}=1.0 μS(Typ.).
- Complementary to KTC3209.

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-2	A
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

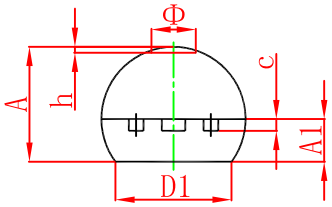
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

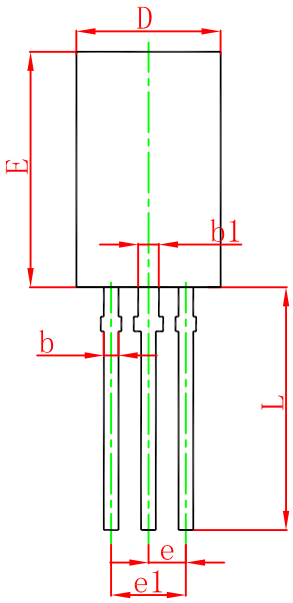
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100 uA, I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -10mA, I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100 μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -50 V , I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V , I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}= -2V, I_C= -0.5A	70		240	
	$h_{FE(2)}$	V_{CE}= -2V, I_C= -1.5A	40			
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=-1A, I_B= -0.05A			-0.5	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=-1A, I_B= -0.05A			-1.2	V
Transition frequency	f_T	V_{CE}=-2V, I_C=-0.5A		100		MHz
Out capacitance	C_{ob}	V_{CB}= -10 V , I_E=0 , f=1MHz		40		pF
Turn-on time	t_{on}	V_{CC}=-30V,I_{B1}=-I_{B2}=-0.05A, I_C=-1A		0.1		us
Storage time	t_s			1		us
Fall time	t_f			0.1		us

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	70-140	120 - 240

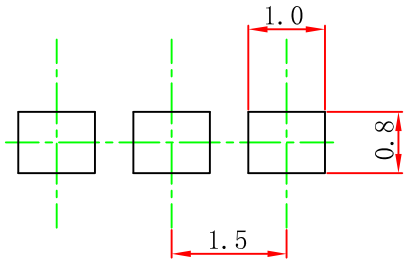
TO-92MOD Package Outline Dimensions





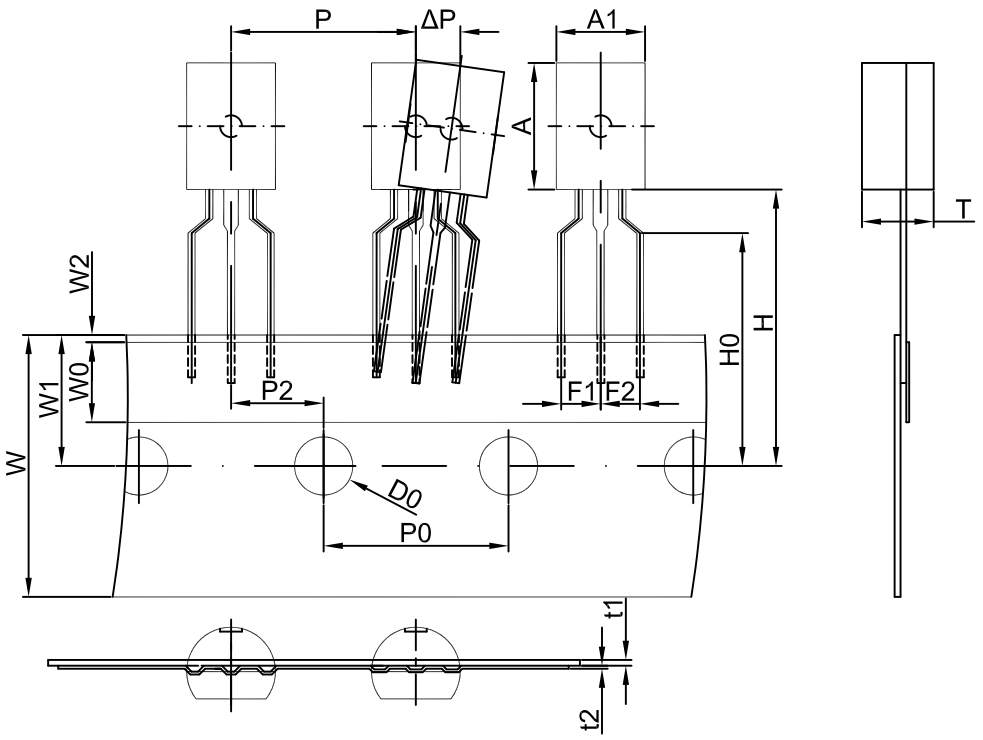
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.800	5.000	0.189	0.197
A1	1.730	2.030	0.068	0.080
b	0.440	0.600	0.017	0.024
b1	0.940	1.100	0.037	0.043
c	0.350	0.450	0.014	0.018
D	5.900	6.100	0.232	0.240
D1	4.000		0.157	
E	8.500	8.700	0.335	0.343
e	1.500 TYP.		0.059 TYP.	
e1	2.900	3.100	0.114	0.122
L	13.800	14.200	0.543	0.559
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92MOD Suggested Pad Layout

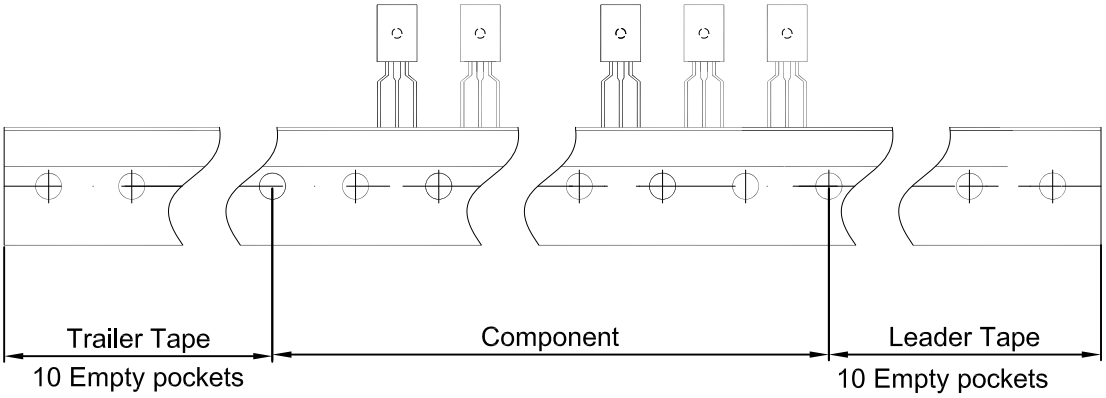


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

TO-92MOD PACKAGE TAPEING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
6.0	8.6	4.9	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92MOD	2000 pcs	333×245×43	20,000 pcs	573×404×266