

## TO-92 Plastic-Encapsulate Transistors

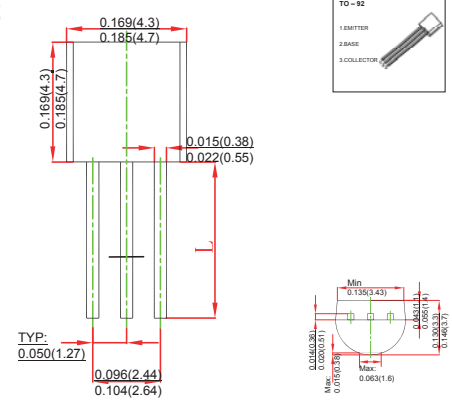
### FEATURES

- Low Saturation Voltage:  $V_{CE(sat)}$
- High DC Current Gain
- TRANSISTOR (PNP)

### MECHANICAL DATA

- Case style:TO-92 molded plastic
- Mounting position:any

### TO-92



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-2k	V
$V_{CE0}$	Collector-Emitter Voltage	-2k	V
$V_{EB0}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current -Continuous	-2	A
$P_D$	Collector Power Dissipation	750	mW
$R_{KJA}$	Thermal Resistance from Junction to Ambient	625	°C /W
$T_J$	Junction Temperature	1wk	°C
$T_{stg}$	Storage Temperature	-55 to 125	°C

### ORDERING INFORMATION

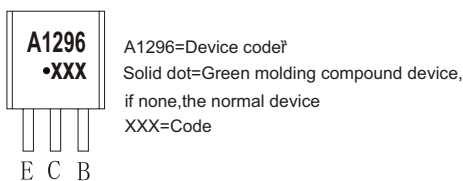
Part Number	Package	Packing Method	Pack Quantity
2SA1296	TO-92	Bulk	1k/0pcs/BaO
2SA1296-TA	TO-92	Tape	2000pcs/Box

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1mA, I_E = 0$	-20			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.1mA, I_C = 0$	-6			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -20V, I_E = 0$			-0.1	μA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -6V, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2V, I_C = -0.1A$	120		400	
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -2A$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2A, I_B = -0.1A$			-0.5	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -2V, I_C = -0.1A$			-0.85	V
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		40		pF
Transition frequency	$f_T$	$V_{CE} = -2V, I_C = -0.5A$		120		MHz

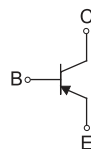
### CLASSIFICATION OF $h_{FE(1)}$

RANK	Y	GR
RANGE	120-240	200-400

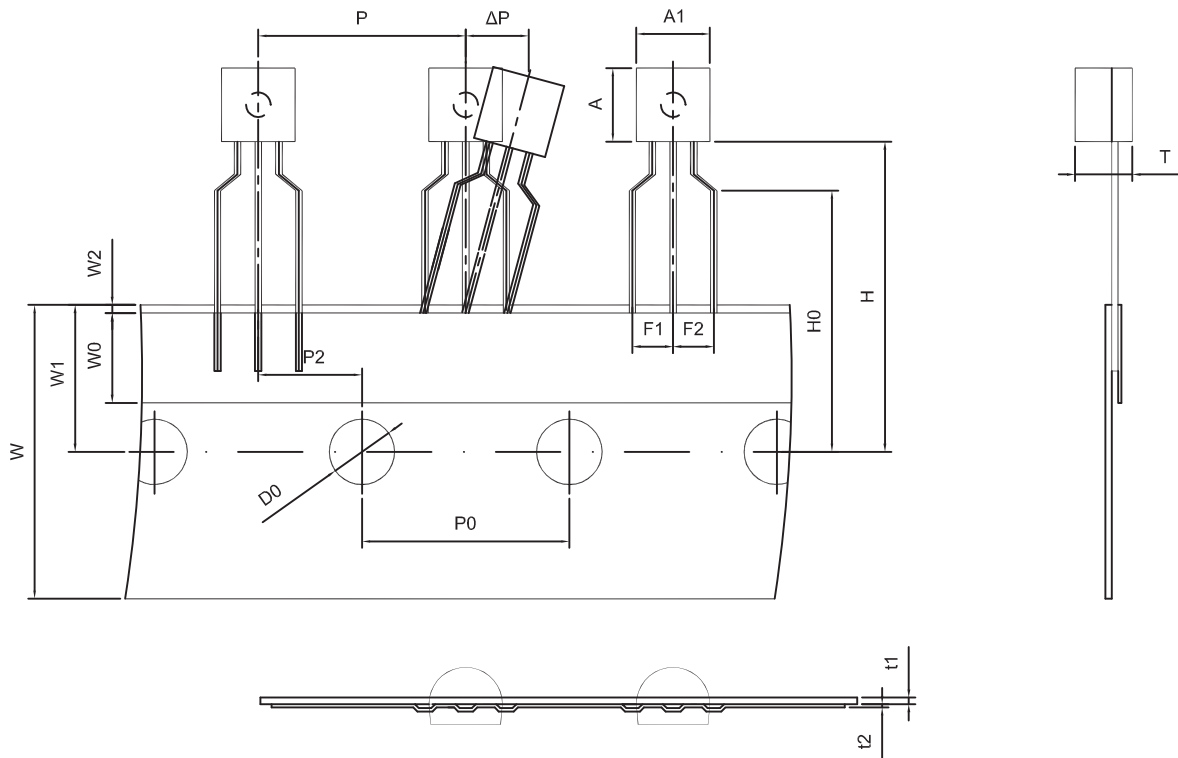
### MARKING



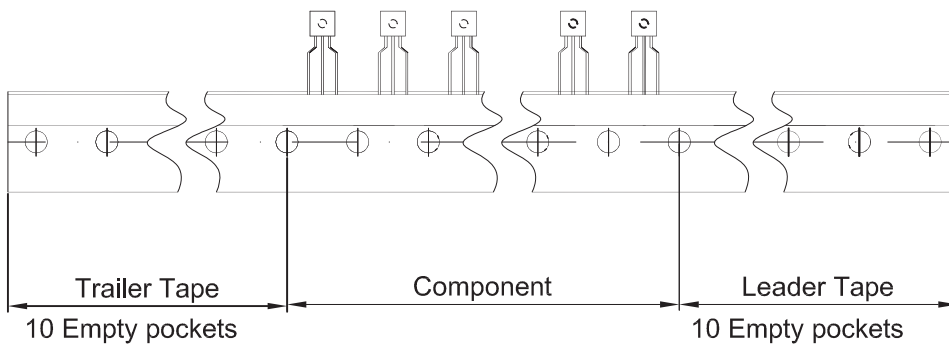
### Equivalent Circuit



TO-92 PACKAGE TAPEING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	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 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250