

## TO-92 Plastic-Encapsulate Transistors

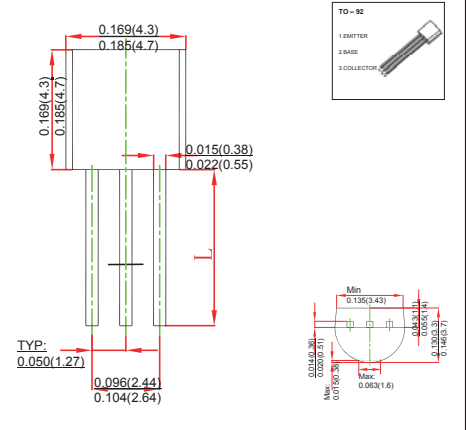
### FEATURES

- Complement to 2N6520
- TRANSISTOR (NPN)

### 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	350	V
$V_{CE0}$	Collector-Emitter Voltage	350	V
$V_{EB0}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	0.5	A
$P_D$	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	°C/W
$T_j$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55~+150	°C

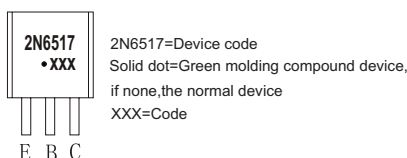
### ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2N6517	TO-92	Bulk	1000pcs/Bag
2N6517-TA	TO-92	Tape	2000pcs/Box

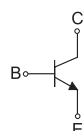
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
<b>Collector-base breakdown voltage</b>	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$	350			V
<b>Collector-emitter breakdown voltage</b>	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	3			V
<b>Emitter-base breakdown voltage</b>	$V_{(BR)EBO}$	$I_E=0.01mA, I_C=0$				V
<b>Collector cut-off current</b>	$I_{CBO}$	$V_{CB}=250V, I_E=0$			0.05	$\mu A$
<b>Emitter cut-off current</b>	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.05	$\mu A$
<b>DC current gain</b>	$h_{FE}^*$	$V_{CE}=10V, I_C=1mA$	2			
		$V_{CE}=10V, I_C=10mA$	3			
		$V_{CE}=10V, I_C=30mA$	3		200	
		$V_{CE}=10V, I_C=50mA$	2		200	
		$V_{CE}=10V, I_C=100mA$	1			
<b>Collector-emitter saturation voltage</b>	$V_{CE(sat)}^*$	$I_C=10mA, I_B=1mA$			0.3	V
		$I_C=50mA, I_B=5mA$			1	V
<b>Base-emitter saturation voltage</b>	$V_{BE(sat)}^*$	$I_C=10mA, I_B=1mA$			0.75	
		$I_C=20mA, I_B=2mA$			0.85	
		$I_C=30mA, I_B=3mA$			0.9	V
<b>Base-emitter voltage</b>	$V_{BE}^*$	$V_{CE}=10V, I_C=100mA$			2	V
<b>Transition frequency</b>	$f_T^*$	$V_{CE}=20V, I_C=10mA, f=20MHz$			200	M
<b>Collector output capacitance</b>	$C_{ob}$	$V_{CB}=20V, I_E=0, f=1MHz$			6	pF

\*Pulse test: pulse width  $\leq 300\mu s$ , duty cycles  $\leq 2.0\%$ .

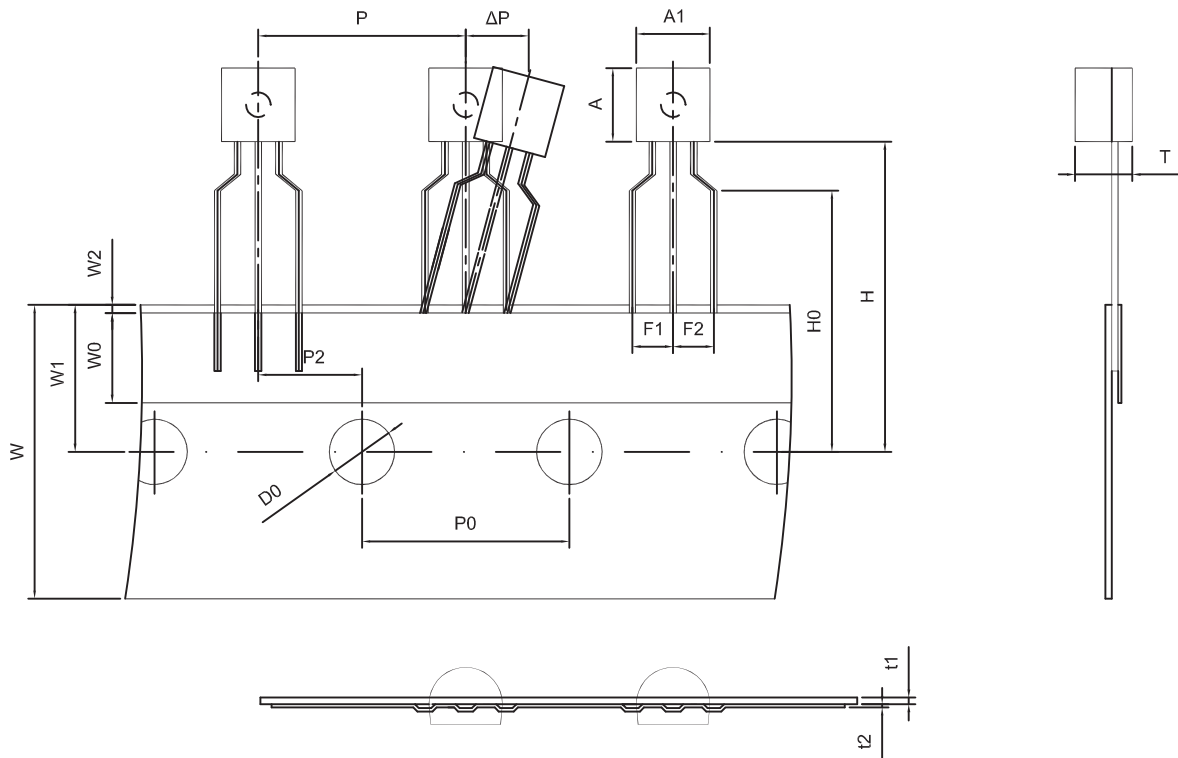
### MARKING



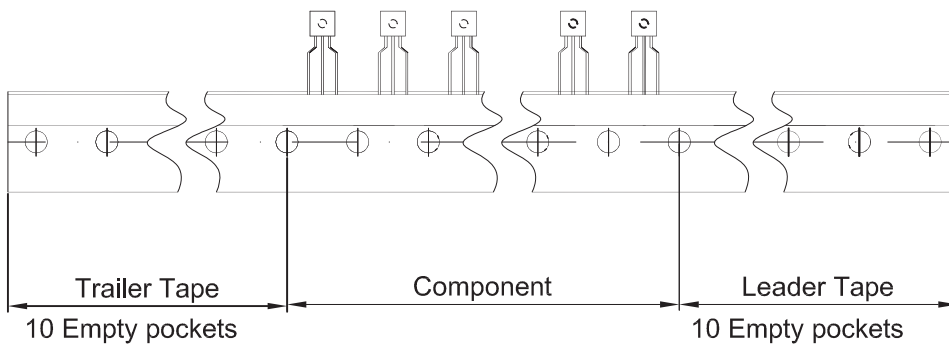
### Equivalent Circuit



TO-92 PACKAGE TAPEING DIMENSION



Dimensions 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