

TO-92 Plastic-Encapsulate Transistors

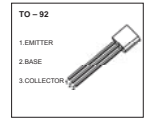
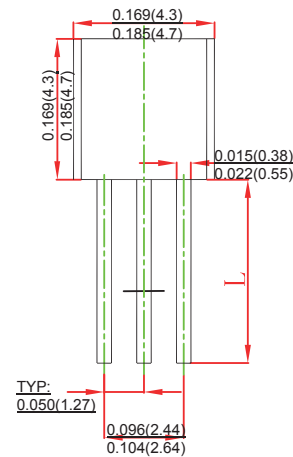
FEATURES

- Complementary NPN Type available (MPS2222)
- 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	Units
V _{CBO}	Collector-Base Voltage	-60	V
V _{CEO}	Collector-Emitter Voltage	-40	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.6	A
P _C	Collector Power Dissipation	0.625	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
MPS2907	TO-92	Bulk	1000pcs/Bag
MPS2907-TA	TO-92	Tape	2000pcs/Box

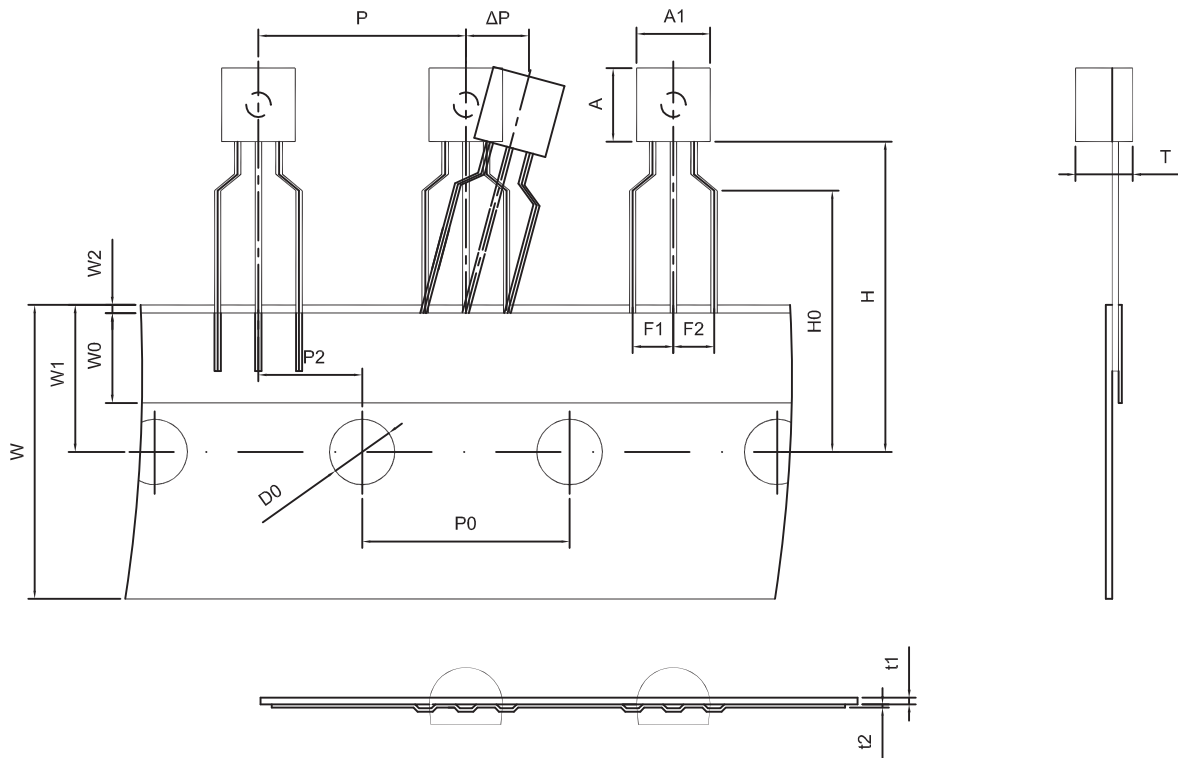
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-10μA, I _E =0	-60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-40			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-50V, I _E =0			-10	nA
Collector cut-off current	I _{CEX}	V _{CE} =-30V, V _{EB(off)} =-0.5V			-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-3V, I _C =0			-10	nA
DC current gain	h _{FE(1)}	V _{CE} =-10V, I _C =-0.1mA	52			
	h _{FE(2)}	V _{CE} =-10V, I _C =-150mA	100		300	
	h _{FE(3)}	V _{CE} =-10V, I _C =-500mA	32			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-150mA, I _B =-15mA			-0.4	V
	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-0.67	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-150mA, I _B =-15mA			-1	V
	V _{BE(sat)}	I _C =-500mA, I _B =-50mA			-1.2	V
Transition frequency	f _T	V _{CE} =-20V, I _C =-50mA, f=100MHz	200			MHz
Delay time	t _d	V _{CC} =-30V, I _C =-150mA, I _{B1} =-15mA			10	nS
Rise time	t _r				25	nS
Storage time	t _s				225	nS
Fall time	t _f	I _{B1} =I _{B2} =-15mA			60	nS

CLASSIFICATION OF h_{FE(2)}

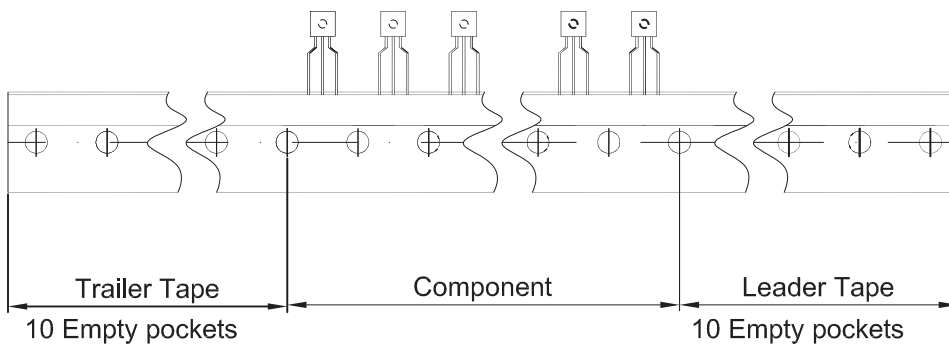
Rank	L	H
Range	100-200	200-300

Marking	MPS2907
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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