



DONGGUAN NANJING ELECTRONICS LTD.,
TO-92 Plastic-Encapsulate Transistors

2SC2216 TRANSISTOR (NPN)

FEATURES

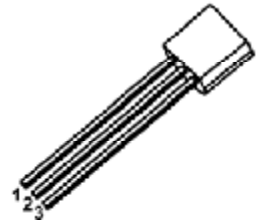
○ Amplifier Dissipation NPN Silicon

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

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	50	V
V _{CE0}	Collector-Emitter Voltage	45	V
V _{EB0}	Emitter-Base Voltage	4	V
I _C	Collector Current -Continuous	50	mA
P _C	Collector Dissipation	300	mW
T _J	Junction Temperature	125	°C
T _{stg}	Storage Temperature	-55-125	°C

TO-92

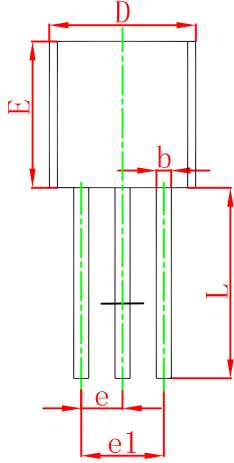
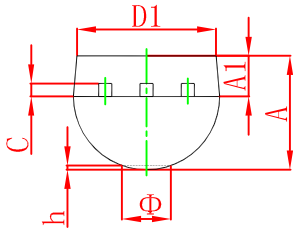
1. BASE
2. EMITTER
3. COLLECTOR



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

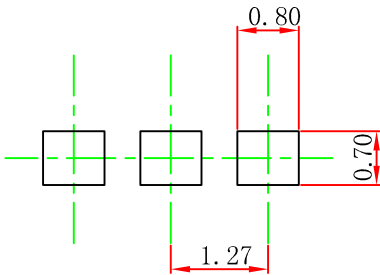
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 100μA, I _E =0	50			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 10 mA, I _B =0	45			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 100μA, I _C =0	4			V
Collector cut-off current	I _{CBO}	V _{CB} =50 V I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 3 V, I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =12.5V, I _C =12.5 mA	40		140	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 15mA, I _B =1.5 mA			0.2	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = 15mA, I _B =1.5 mA			1.5	V
Transition frequency	f _T	V _{CE} =12.5 V, I _C =12.5mA	300			MHz
Collector output capacitance	C _{cb}	V _{CB} =10V, I _E =0, f=30MHz			2.0	pF

TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

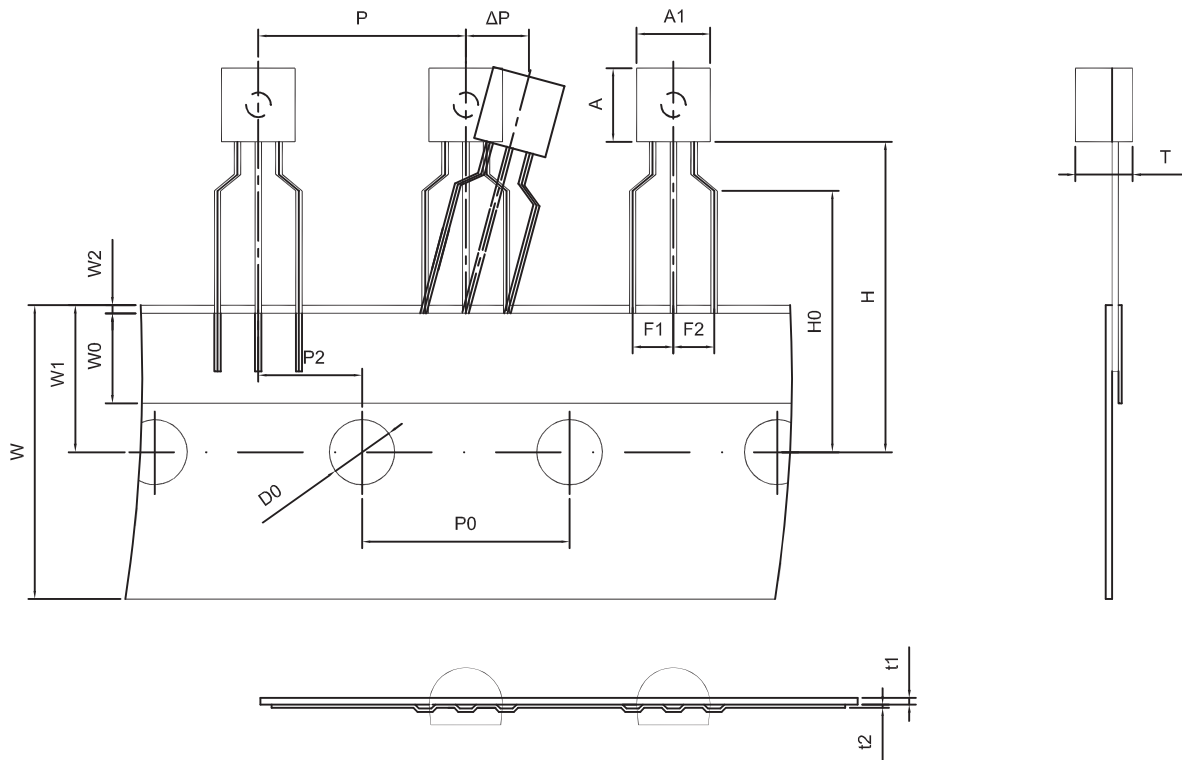
TO-92 Suggested Pad Layout



Note:

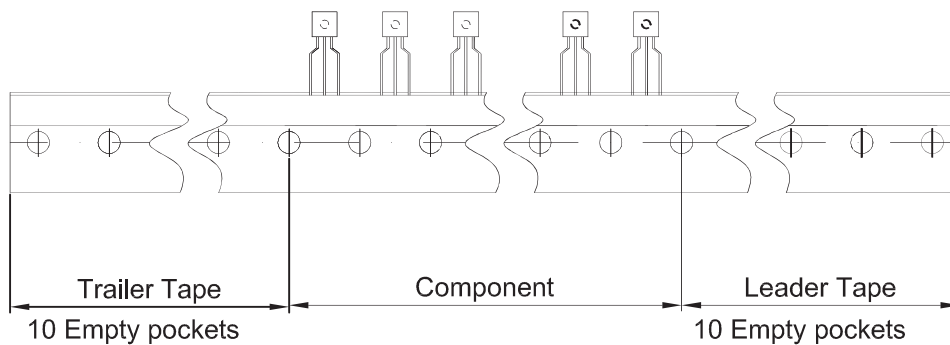
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

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