

REPLACEMENT TYPE :2N3828

FEATURES

- General Purpose Amplifier Transistor



TO-92

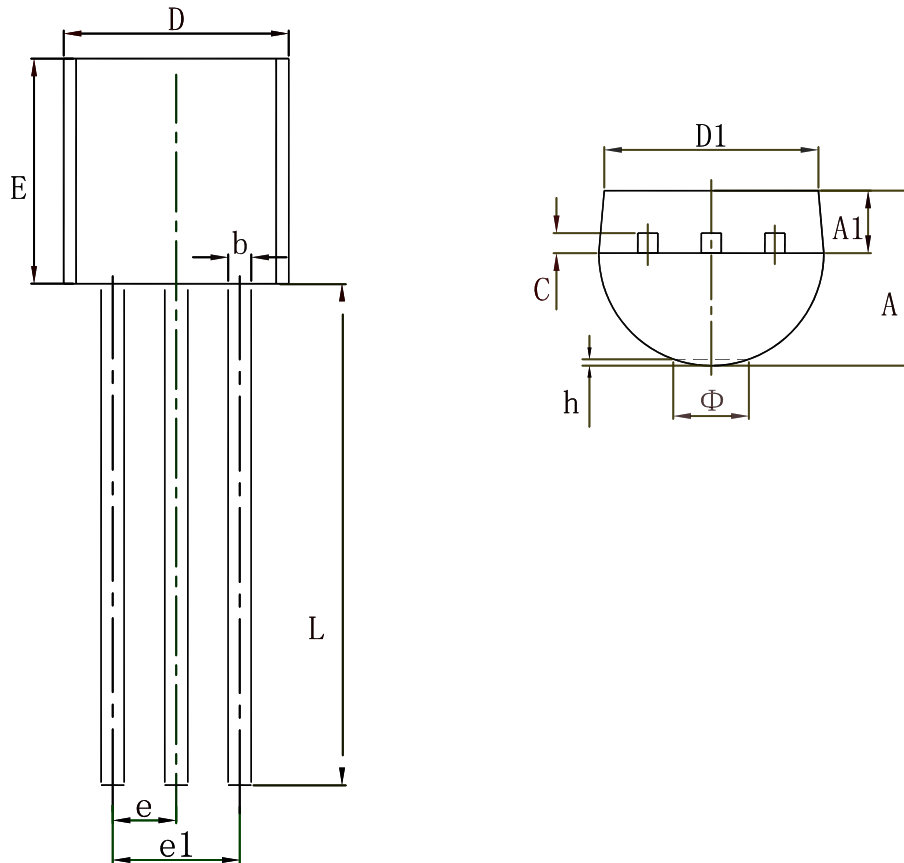
1:EMITTER 2:BASE 3:COLLECTOR

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	40	V
Collector-Emitter Voltage	V _{CEO}	40	V
Emitter-Base Voltage	V _{EBO}	3	V
Collector Current-Continuous	I _C	0.1	A
Collector Power Dissipation	P _C	300	mW
Thermal Resistance From Junction to Ambient	R _{θJA}	416	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~+150	°C

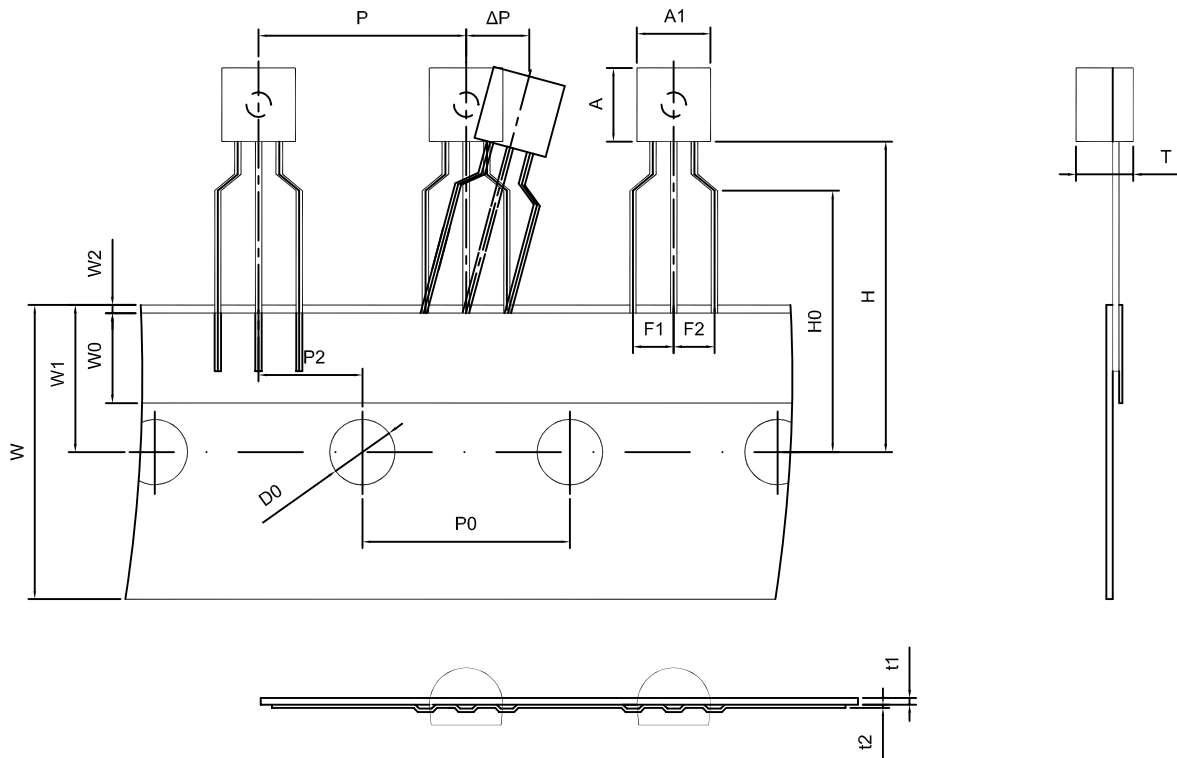
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	V _{CBO}	I _C =0.01mA, I _E =0	40			V
Collector-Emitter Breakdown Voltage	V _{CEO}	I _C =1mA, I _B =0	40			V
Emitter-Base Breakdown Voltage	V _{EBO}	I _E =0.01mA, I _C =0	3			V
Collector Cut-off Current	I _{CBO}	V _{CB} =60V, I _E =0			0.1	μA
Collector Cut-off Current	I _{CEX}	V _{CE} =30V, V _{BE(off)} =3V			50	nA
Emitter Cut-off Current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC Current Gain	h _{FE}	V _{CE} =1V, I _C =12mA	30		200	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =50mA, I _B =5mA			0.3	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	V _{CE} =50V, I _C =5mA			0.95	V
Transition Frequency	f _T	V _{CE} =20V, I _C =10mA, f=100MHz	360			MHz

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 Package Taping Dimension



Dimiensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.5±0.2	4.5±0.2	3.5±0.2	12.7±0.3	12.7±0.2	6.35±0.3	2.5±0.3	2.5±0.3	18.0+1.0/-0.5
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0±0.5	9.0±0.5	1.0 MAX.	19.0±1.0	16.0±0.5	4.0±0.5	0.4±0.05	0.2±0.05	0 ± 1.0

