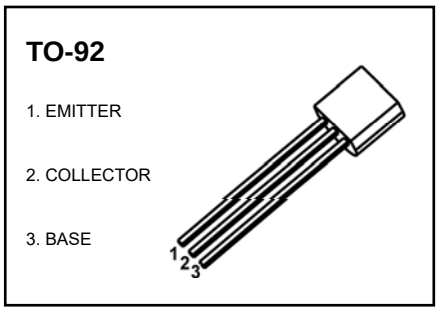
DONGGUAN NANJING ELECTRONICS LTD.,

TO-92 Plastic-Encapsulate Transistors

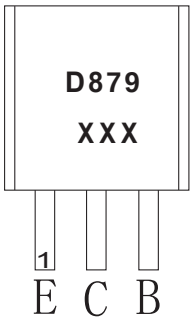
2SD879 TRANSISTOR (NPN)



FEATURES

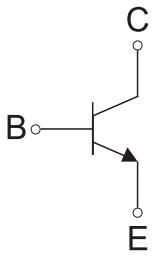
- In Applications Where Two NiCd Batteries are Used to rovide 2.4V, two 2SD879s are used.
- The charge time is appro ximately 1 second faster Than that of germanium transistors.
- Less power dissip ation because o f low Collector-to-Emitter Voltage $V_{CE(sat)}$, permitting more flashes of light to be emitted.
- Small package and large allowable collector dissipation (TO-92, P_C=750mW).
- Large current capacity and highly resistant to break-down.
- Excellent linearity of h_{FE} in the region from low current to high current. Power amplifier applications

MARKING



D879=Device code
XXX=Code

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SD879	TO-92	Bulk	1000pcs/Bag
2SD879-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	10	V
V_{CEX}		20	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current –Continuous	3	A
P_C	Collector Power Dissipation	750	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

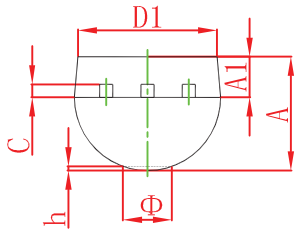
ELECTRICAL CHARACTERISTICS

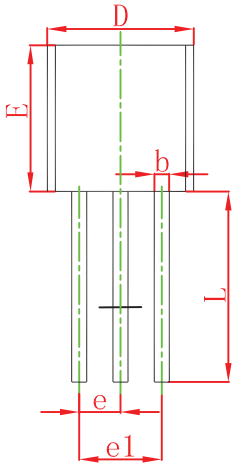
T_a=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA , I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEX}$	I_C=1mA , V_{BE}=3V	20			V
	$V_{(BR)CEO}$	I_C=10mA, I_B=0	10			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA, I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=20V , I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V , I_C=0			1	μA
DC current gain	h_{FE}*	V_{CE}=2V, I_C=3A	140			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=3A, I_B=60mA			0.4	V
Transition frequency	f_T	V_{CE}=10V, I_C=50mA		200		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V,f=1MHz		30		pF

*PULSE TEST

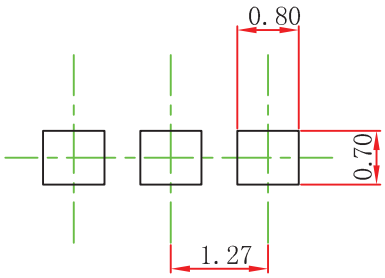
TO-92 Package Outline Dimensions





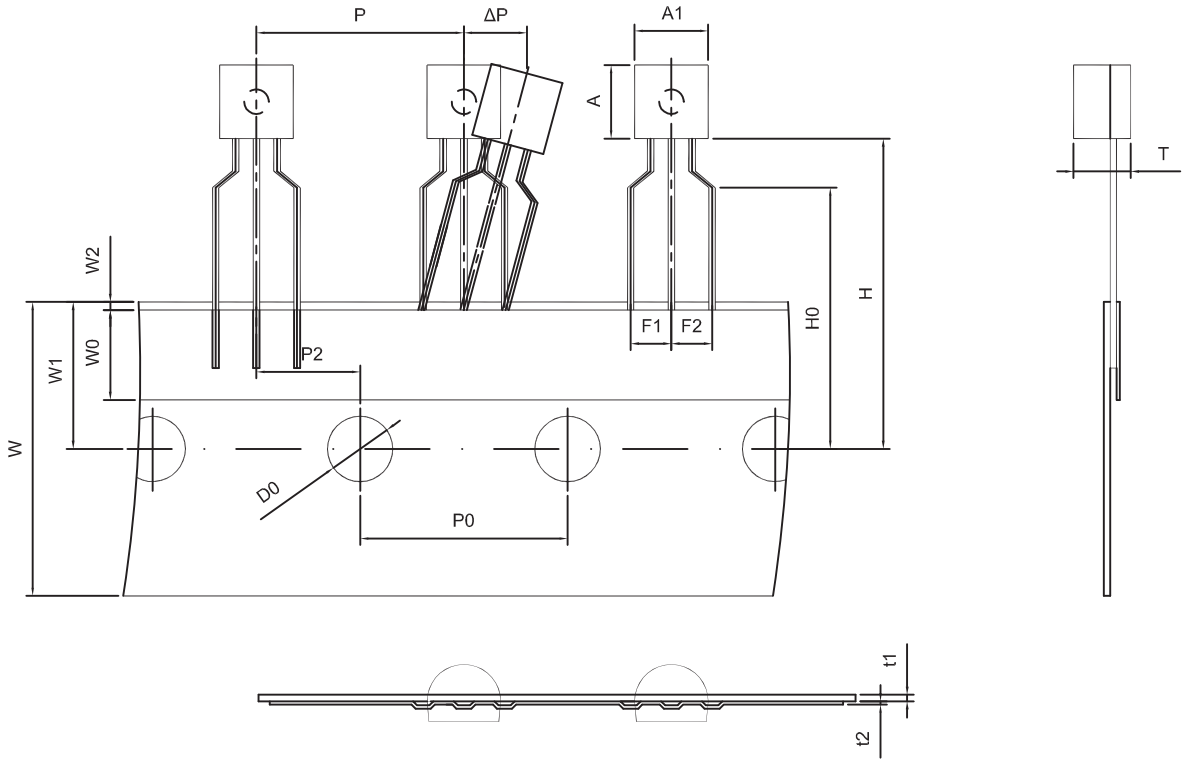
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100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

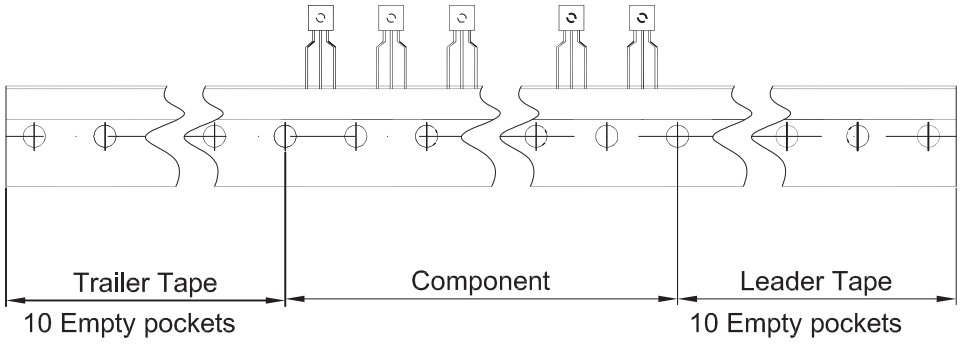


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

TO-92 Tape and Reel



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