

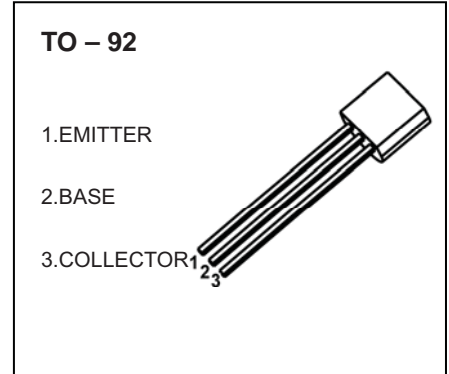


**TO-92 Plastic-Encapsulate Transistors**

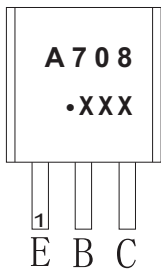
**KSA708** TRANSISTOR (PNP)

**FEATURES**

- Low Saturation Medium Current Application

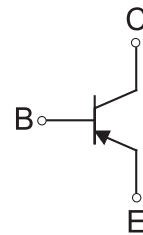


**MARKING**



A708=Device code  
 Solid dot=Green molding compound device,  
 if none,the normal device  
 XXX=Code

**Equivalent Circuit**



**ORDERING INFORMATION**

Part Number	Package	Packing Method	Pack Quantity
KSA708	TO-92	Bulk	1000pcs/Bag
KSA708-TA	TO-92	Tape	2000pcs/Box

**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	-80	V
V <sub>CE0</sub>	Collector-Emitter Voltage	-60	V
V <sub>EBO</sub>	Emitter-Base Voltage	-8	V
I <sub>c</sub>	Collector Current -Continuous	-700	mA
P <sub>D</sub>	Collector Power Dissipation	800	mW
R <sub>θJA</sub>	Thermal Resistance rom Junction to Ambient	156.2	°C /W
T <sub>J</sub> ,T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55~+150	°C

---

## ELECTRICAL CHARACTERISTICS

---

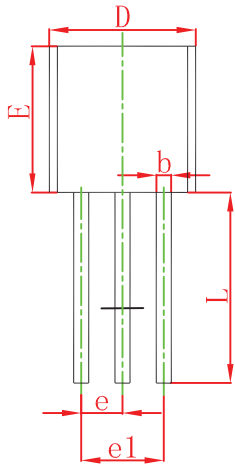
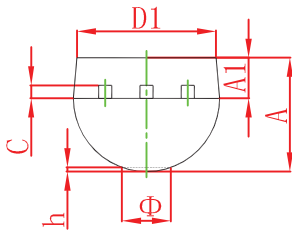
$T_a=25\text{ }^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.1\text{mA}, I_E=0$	-80			V
Collector-emitter breakdown	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.1\text{mA}, I_C=0$	-8			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-60\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=-2\text{V}, I_C=-50\text{mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-1.1	V
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		13		pF
Transition frequency	$f_T$	$V_{CE}=-10\text{V}, I_C=-50\text{mA}$		50		MHz

### CLASSIFICATION OF $h_{FE}$

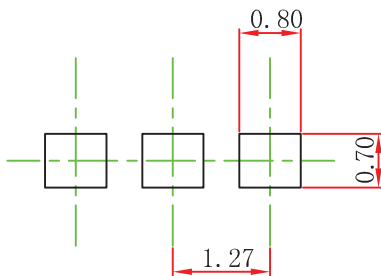
RANK	R	O	Y
RANGE	40-80	70-140	120-240

## 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



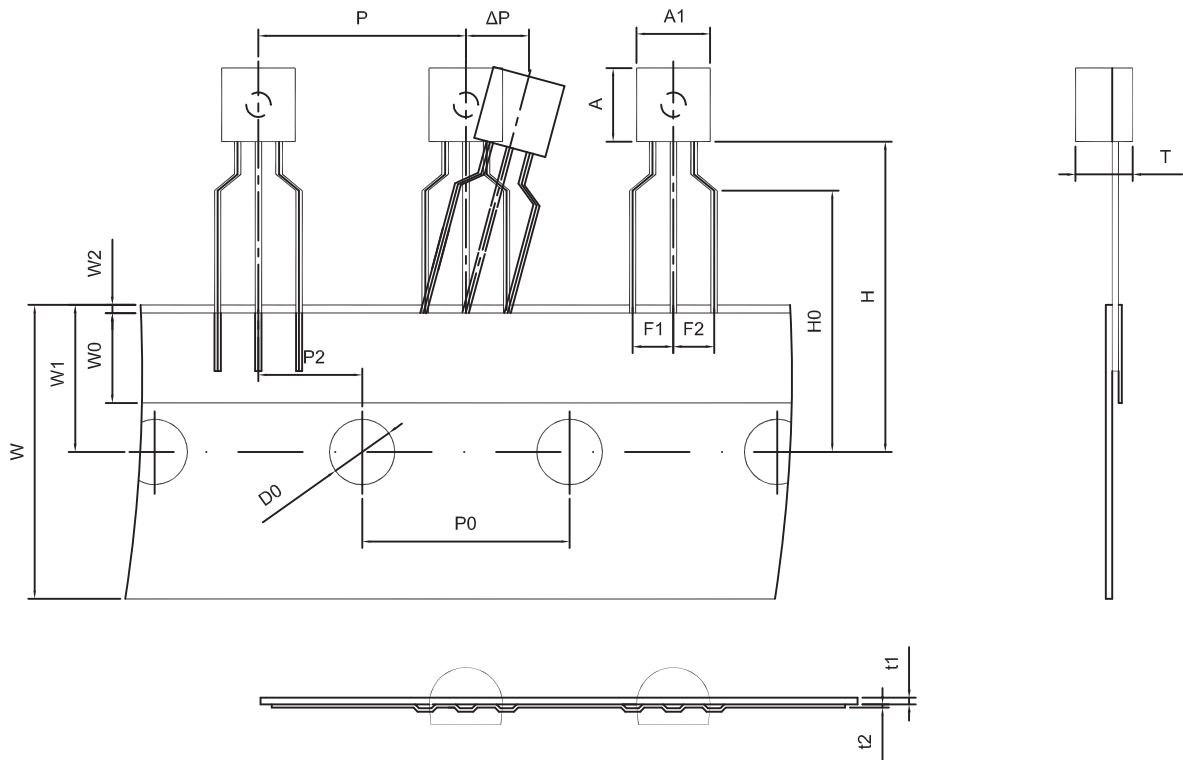
### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

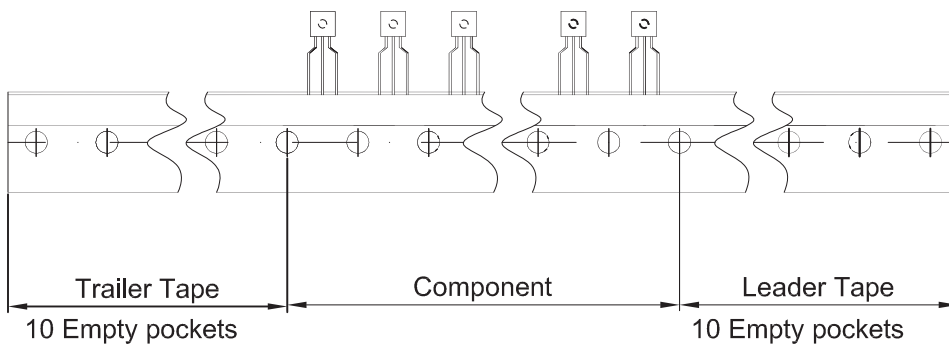
### NOTICE

JSCJ reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

TO-92 PACKAGE TAPING 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

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Bipolar Transistors - BJT category](#):*

*Click to view products by [Changjing Electronics Technology manufacturer](#):*

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)  
[NTE195A](#) [NTE92](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [2SC4731T-AY](#) [FJPF5304DTU](#)  
[2N2369ADCSM](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SB1324-TD-E](#) [2SC2412KT146S](#) [2SC3902S](#) [2SC5231C8-TL-E](#) [2SD1685F](#) [CPH6501-TL-](#)  
[E](#) [MCH4021-TL-E](#) [MJE340](#) [Jantx2N5416](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#)  
[UMX21NTR](#) [MCH6102-TL-E](#) [NJL0302DG](#) [TTA1452B,S4X\(S](#) [2N3879](#) [NTE13](#) [NTE26](#) [NTE282](#) [NTE323](#) [NTE350](#)