

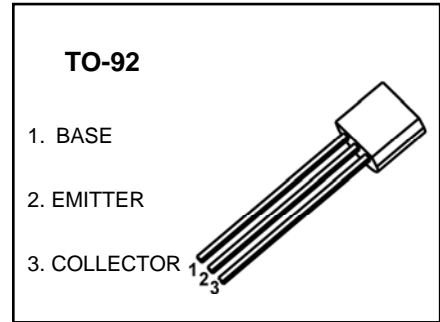


TO-92 Plastic-Encapsulate Transistors

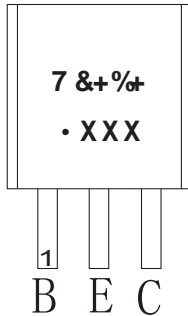
2SC2717 TRANSISTOR (NPN)

FEATURES

- High Gain: $G_{pe} = 33 \text{ dB}$ (Typ.) ($f = 45 \text{ MHz}$)
- Good Linearity of h_{FE} .

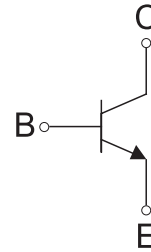


MARKING



C2717=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
2SC2717	TO-92	Bulk	1000pcs/Bag
2SC2717-TA	TO-92	Tape	2000pcs/Box

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

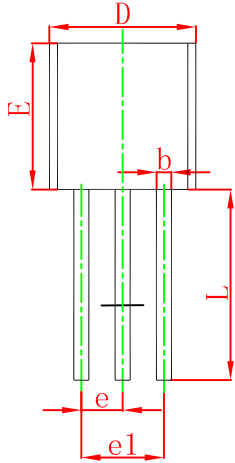
Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	30	V
V _{CEO}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	4	V
I _C	Collector Current -Continuous	50	mA
P _C	Collector Power Dissipation	300	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	°C
R _{θJA}	Thermal Resistance From Junction To Ambient	417	°C/W

ELECTRICAL CHARACTERISTICS

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

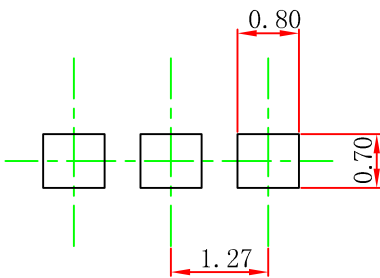
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	4			V
Collector cut-off current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3\text{V}, I_C=0$			0.1	μA
DC current gain	h_{FE1}	$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$	90		320	
DC current gain	h_{FE2}	$V_{CE}=5\text{V}, I_C=50\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=15\text{mA}, I_B=1.5\text{mA}$			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=15\text{mA}, I_B=1.5\text{mA}$			1.5	V
Transition frequency	f_T	$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$	300			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=30\text{MHz}$	0.8		2.0	pF
Collector-base time constant	$C_C^{.rbb'}$	$V_{CB}=10\text{V}, I_E=-1\text{mA}, f=30\text{MHz}$			25	ps
Power gain (fig.)	G_{pe}	$V_{CC}=12.5\text{V}, I_E=-12.5\text{mA}, f=45\text{MHz}$	28		36	dB

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



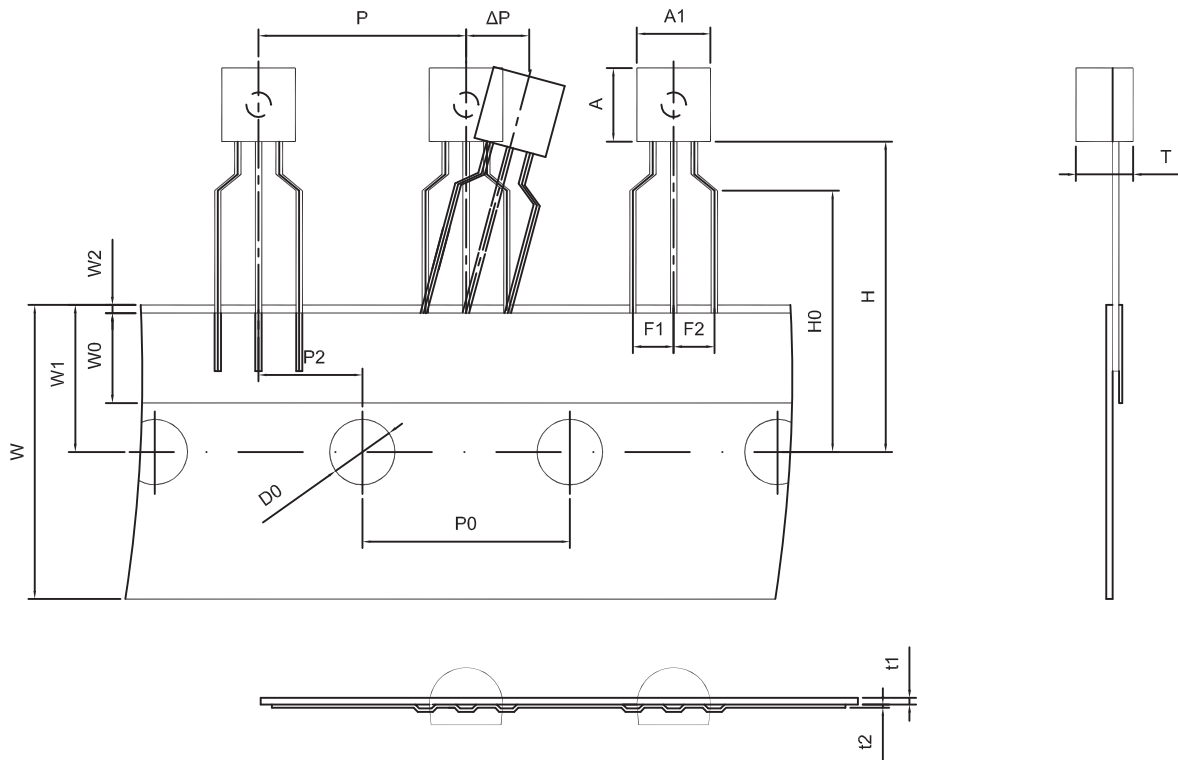
Note:

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

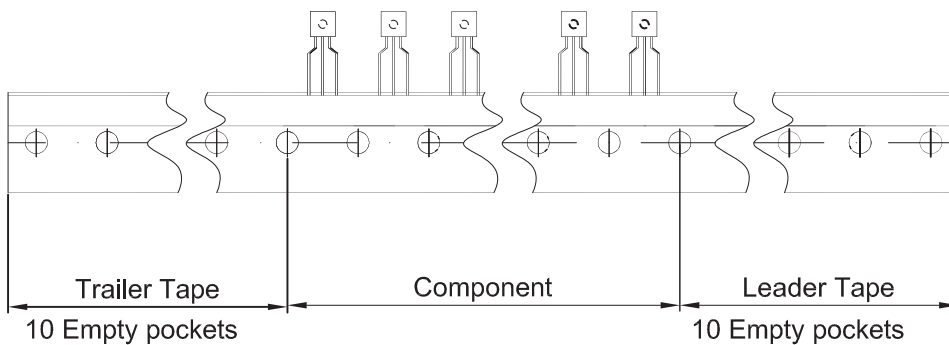
NOTICE

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