



DONGGUAN NANJING ELECTRONICS LTD.,

## TO-92 Plastic-Encapsulate Transistors

**BF483/BF485/BF487** TRANSISTOR (NPN)

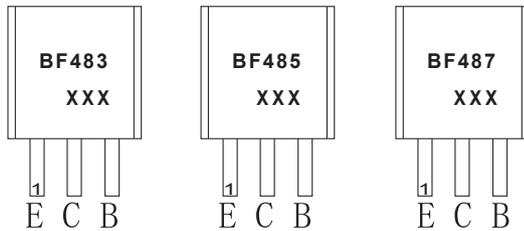
### FEATURES

- Low Feedback Capacitance

### APPLICATIONS

- Intended for Use in Video Output Stages in Black-and-white and in Colour Television Receivers.

### MARKING

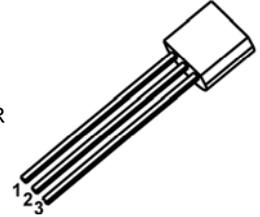


BF483,BF485,BF487=Device code

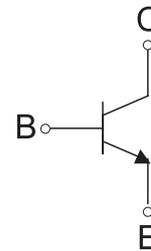
XXX=Code

### TO - 92

- 1.EMITTER
- 2.COLLECTOR
- 3.BASE



### Equivalent Circuit



### ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
BF483	TO-92	Bulk	1000pcs/Bag
BF483-TA	TO-92	Tape	2000pcs/Box
BF485	TO-92	Bulk	1000pcs/Bag
BF485-TA	TO-92	Tape	2000pcs/Box
BF487	TO-92	Bulk	1000pcs/Bag
BF487-TA	TO-92	Tape	2000pcs/Box

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

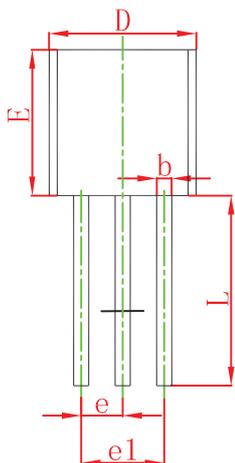
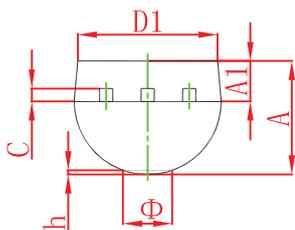
Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	BF483	300
		BF485	350
		BF487	400
$V_{CEO}$	Collector-Emitter Voltage	BF483	250
		BF485	300
		BF487	350
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	0.1	A
$P_C$	Collector Power Dissipation	830	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	150	°C /W
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	°C

## ELECTRICAL CHARACTERISTICS

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

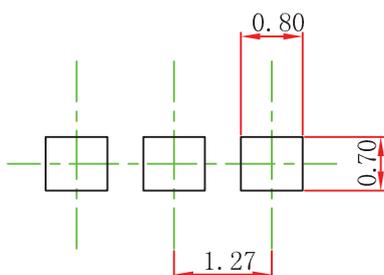
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	BF483	300		V
			BF485	350		
			BF487	400		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	BF483	250		V
			BF485	300		
			BF487	350		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=300\text{V}, I_E=0$			20	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=20\text{V}, I_C=25\text{mA}$	50			
	$h_{FE(2)}$	$V_{CE}=20\text{V}, I_C=40\text{mA}$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=30\text{mA}, I_B=5\text{mA}$			0.6	V
Transition frequency	$f_T$	$V_{CE}=10\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	70			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=30\text{V}, I_E=0, f=1\text{MHz}$			1.4	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

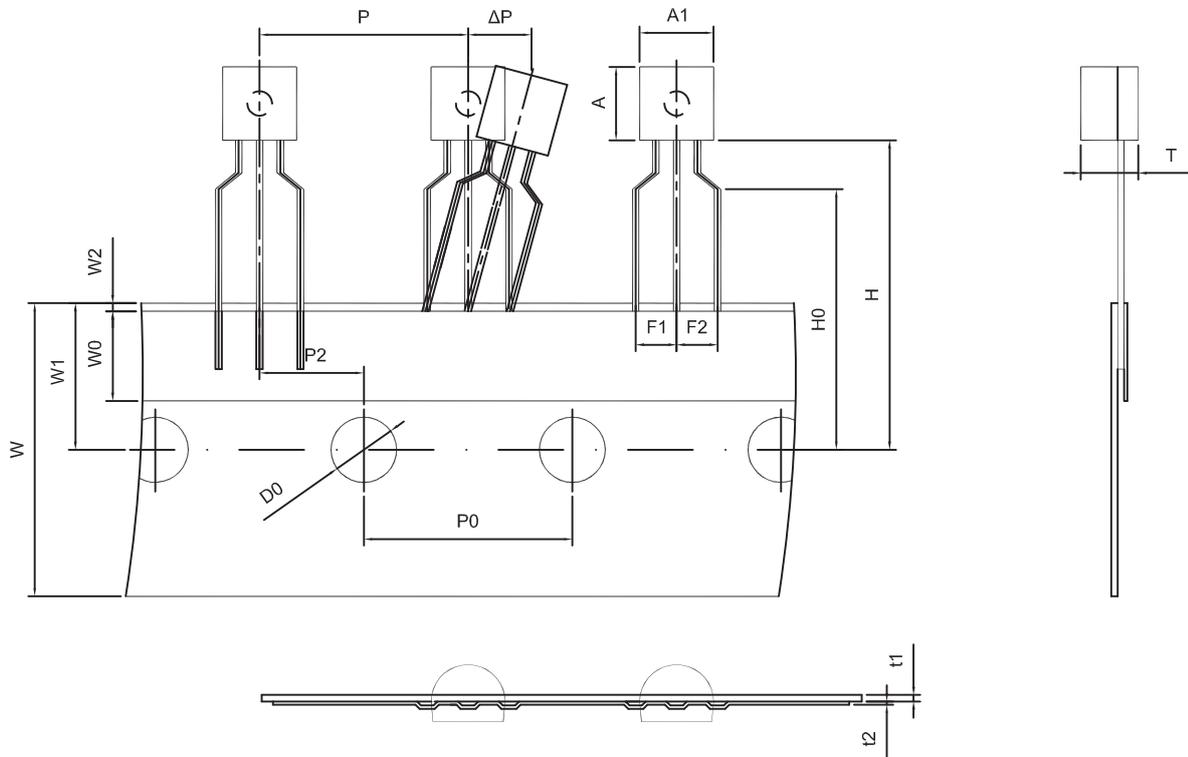
## TO-92 Suggested Pad Layout



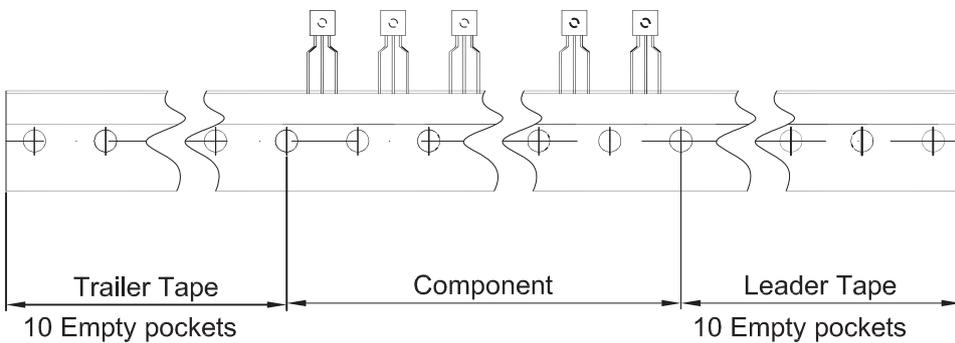
### Note:

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

# TO-92 Tape and Reel



Dimensions 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	$\Delta P$
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