

## TABLE 5 : NPN LOW NOISE

ZETEX SEMICONDUCTORS

The transistors in this table are characterised for low noise, low level amplification and are ideally suited for audio pre-amplifiers as well as universal applications.

T-27-01

Type	V <sub>CEO</sub> V	Max I <sub>C</sub> mA	Max V <sub>CE(sat)</sub> at			h <sub>FE</sub> at			Min f <sub>T</sub> at		Max. Noise Figure at			Complement
			V	I <sub>C</sub> mA	I <sub>B</sub> mA	Min	Max	I <sub>C</sub> mA	MHz	I <sub>C</sub> mA	N dB	I <sub>C</sub> μA	f Hz	
BCY65EP	60	100	0.35	10	0.25	120	460	2	125	10	6	200	1k	BCY77P
2N5209	50	50	0.7	10	1	100	300	0.1	30	0.5	3	200	30-15k	2N5086
2N5210	50	50	0.7	10	1	200	600	0.1	30	0.5	2	200	30-15k	2N5087
ZTX331	45	500	0.7	10	0.5	40	120	0.01	30	0.5	3*	10	1k	ZTX531
BC550P	45	200	0.25	10	0.5	200	800	2	300*	10	3	200	30-15k	BC560P
ZTX382	45	200	0.25	10	0.5	100	850	2	150	10	6	200	30-15k	-
BCY59P	45	200	0.35	10	0.25	120	630	2	125	10	6	200	1k	BCY79P
BC414P	45	100	0.25	10	0.5	200	800	2	250*	10	3	200	30-15k	BC416P
2N3904	40	200	0.2	10	1	100	300	10	300	10	5	200	30-15k	2N3906
2N3903	40	200	0.2	10	1	50	150	10	250	10	6	200	30-15k	2N3905
BCY58P	32	200	0.35	10	0.25	120	630	2	125	10	6	200	1k	BCY78P
ZTX330	30	500	0.7	10	0.5	100	400	0.1	30	0.5	3*	10	1k	ZTX530
BC549P	30	200	0.25	10	0.5	200	800	2	300*	10	4	200	30-15k	BC559P
ZTX239	30	200	0.25	10	0.5	180	800	2	150	10	4	200	30-15k	ZTX214
ZTX383	30	200	0.25	10	0.5	100	850	2	150	10	6	200	30-15k	-
BC184P	30	200	0.25	10	0.5	250	-	2	150	10	4	200	30-15k	BC214P
ZTX384	30	200	0.25	10	0.5	250	-	2	150	10	4	200	30-15k	-
2N4123	30	200	0.3	50	5	50	150	2	250	10	6	200	30-15k	2N4125
BC413P	30	100	0.25	10	0.5	200	800	2	250*	10	3	200	30-15k	BC415P
ZTX109	30	100	0.1*	10	1	240	900	2	350*	10	4	10	1k	ZTX214
2N4124	25	200	0.3	50	5	120	360	2	300	10	5	20	30-15k	2N4126
BC109P	20	50	0.2	10	0.5	180	800	2	300	10	4	200	30-15k	BC179P
BC239P	20	50	0.2	10	0.5	180	800	2	150	10	4	200	30-15k	BC309P

\*Typical.

# E-LINE TAPED PRODUCT

ZETEX SEMICONDUCTORS

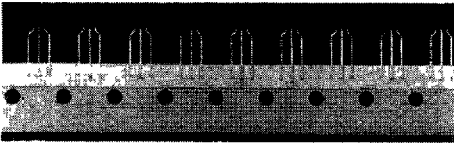
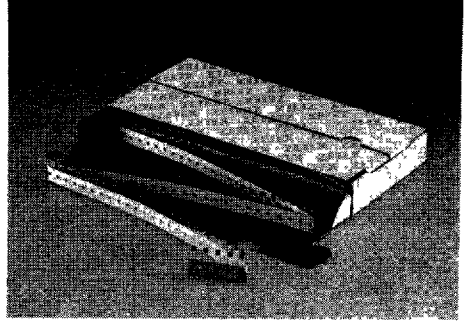
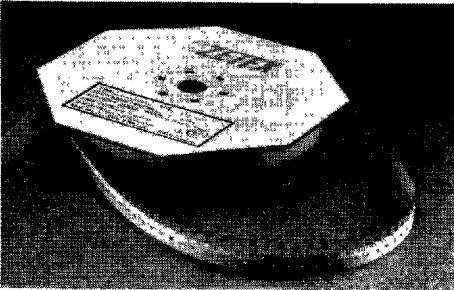
T-91-20

## RADIAL TAPE FOR AUTOMATIC INSERTION

Two types are available.

(a) The tape, bearing the devices, is wound on a reel and supplied in a cardboard box.

(b) The tape, bearing the devices, is folded in a concertina (or Z) form and supplied in a cardboard box (ammo pack).

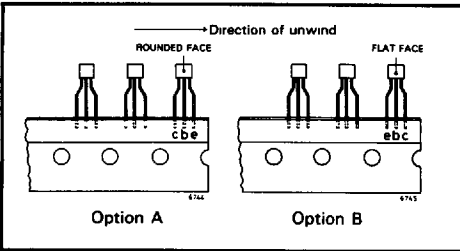


### TAPE FEATURES

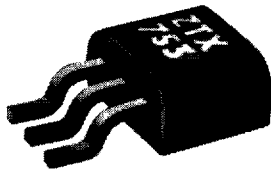
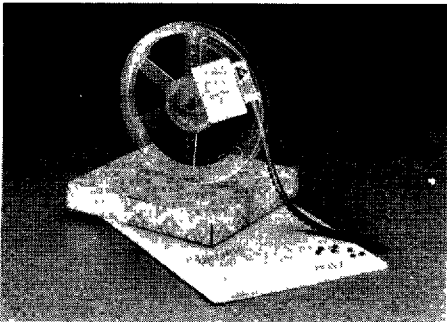
- Each reel or box contains 2000 devices.
- No more than 2 consecutive vacant spaces on the tape.
- Minimum of 5 vacant spaces at beginning and end of tape.
- Available with choice of orientation.

To order E-Line transistors on tape, the following format should be used.

- Suffix 'STO' for product taped and put on reels.
- Orientation (option A or B).  
e.g. ZTX650 STO.A.
- Suffix 'STZ' for product taped and folded (ammo pack).



## M1 IN TAPE FOR SURFACE MOUNTING



### TAPE FEATURES

- 13" reel contains 3000 devices
- 7" reel contains 500 devices
- Devices contained in anti-static tape.

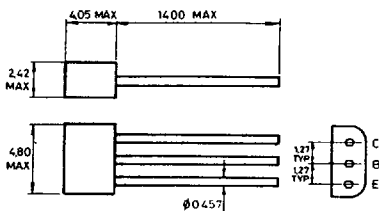
To order E-Line M1 transistors on tape.

- 7" reels - Suffix device type with M1TA  
e.g. ZTX651 M1TA
- 13" reels - Suffix device type with M1TC  
e.g. ZTX651 M1TC

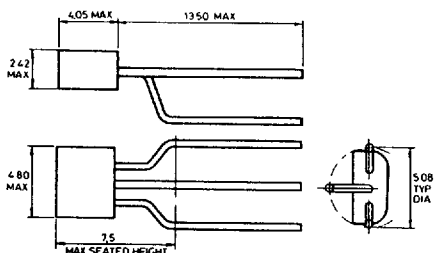


# E-LINE (TO-92 STYLE) PACKAGE OUTLINES

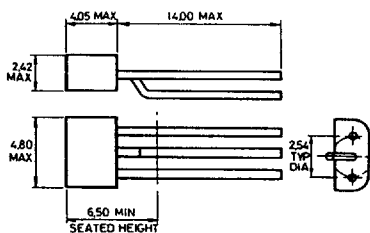
Devices can be ordered with the following lead configurations by adding the indicated suffix to the part number.



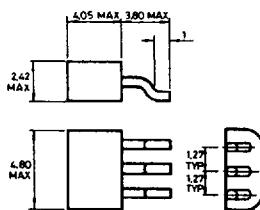
**STANDARD PACKAGE  
BS 3934 SO-94**



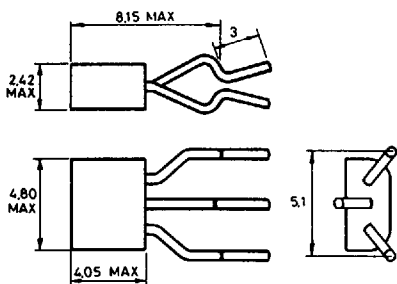
**SUFFIX 'K' LEAD FORMATION  
for TO-5 and TO-39 compatibility  
BS 3934 SO-95**



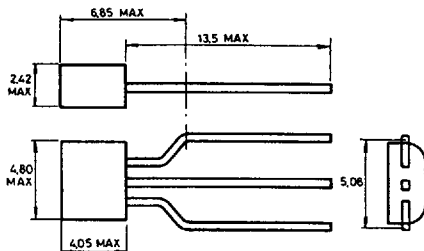
**SUFFIX 'L' LEAD FORMATION  
for TO-18 compatibility  
BS 3934 SO-97**



**SUFFIX 'M1' LEAD FORMATION  
for flat mounting  
BS 3934 SO-96**



**SUFFIX 'Q' LEAD FORMATION  
(Lockfit)**



**SUFFIX 'S' LEAD FORMATION**

Dimensions in millimetres

The 'S' type lead formation is pin compatible with the popular TO-202 plastic power transistor.