

**TABLE 1: NPN GENERAL PURPOSE** T-27-01

The devices shown in this table are general purpose transistors designed for small signal amplification from d.c. to radio frequencies. Typical application areas include: AUDIO FREQUENCY AMPLIFIERS, DRIVERS and OUTPUT STAGES, OSCILLATORS, AND GENERAL PURPOSE SWITCHES.

ZETEX SEMICONDUCTORS

Type	V <sub>CB0</sub> V	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		P <sub>tot</sub> at T <sub>amb</sub> = 25°C mW	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		
BC546P	80	65	200	0.25	10	0.5	75	200	2	300*	10	500	BC556P
ZTX304	70	70	500	0.35	50	5	50	300	10	150	10	300	ZTX504
BC182P	60	50	200	0.25	10	0.5	100	480	2	150	10	300	BC212P
ZTX107	60	50	100	0.1*	10	1	125	500	2	350*	10	300	ZTX212
BC547P	50	45	200	0.25	10	0.5	75	450	2	300*	10	500	BC557P
BC107P	50	45	200	0.2	10	0.5	120	460	2	150	10	300	BC177P
BC237P	50	45	200	0.2	10	0.5	120	460	2	150	10	300	BC307P
ZTX237	50	45	200	0.25	10	0.5	120	460	2	150	10	300	ZTX212
ZTX303	45	45	500	0.35	50	5	50	300	10	150	10	300	ZTX503
ZTX238	45	30	200	0.25	10	0.5	120	800	2	150	10	350	ZTX213
BC183P	45	30	200	0.25	10	0.5	100	850	2	150	10	300	BC213P
ZTX108	45	30	100	0.1*	10	1	125	900	2	350*	10	300	ZTX213
ZTX302	35	35	500	0.25	50	5	100	300	10	150	10	300	ZTX502
ZTX301	35	35	500	0.25	50	5	50	300	10	150	10	300	ZTX501
BC548P	30	30	200	0.25	10	0.5	75	800	2	300*	10	500	BC558P
BC108P	30	20	200	0.2	10	0.5	120	800	2	150	10	300	BC178P
BC238P	30	20	200	0.2	10	0.5	120	800	2	150	10	300	BC308P
ZTX300	25	25	500	0.35	10	1	50	300	10	150	10	300	ZTX500
MPSA20	—	40	100	0.25	10	1	40	400	5	125	5	500	—

\*Typical

# E-LINE TAPED PRODUCT

ZETEX SEMICONDUCTORS

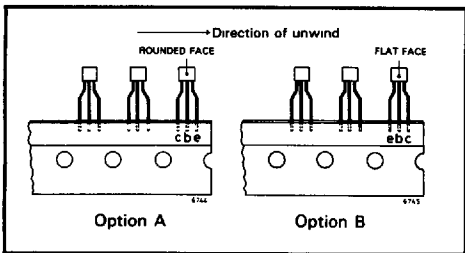
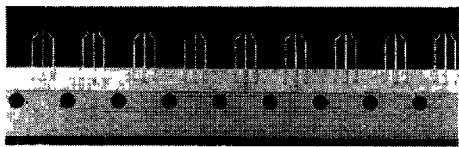
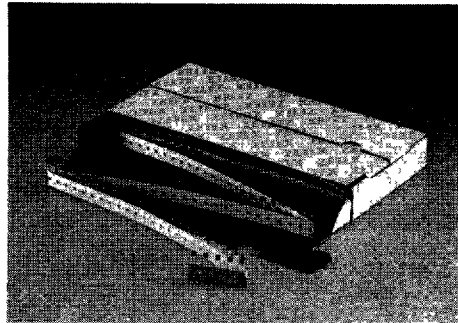
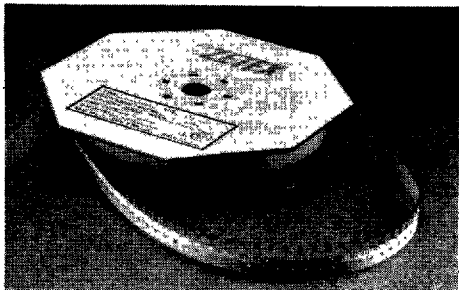
## RADIAL TAPE FOR AUTOMATIC INSERTION

T-91-20

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).



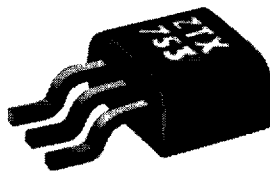
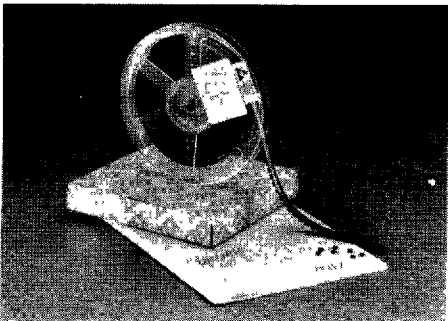
### TAPE FEATURES

- 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.

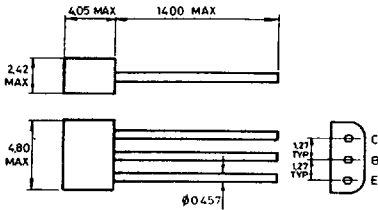
To order E-Line M1 transistors on tape.

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

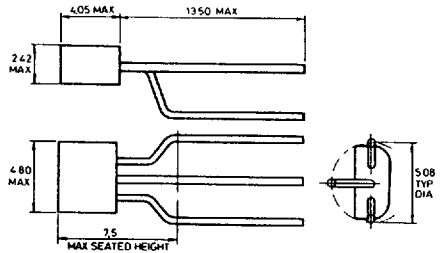


# E-LINE (TO-92 STYLE) PACKAGE OUTLINES

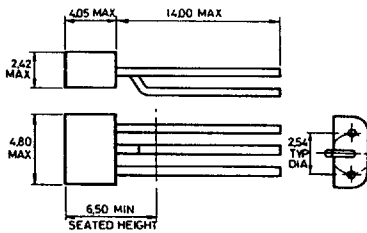
Devices can be ordered with the following lead configurations by adding the indicated suffix to the part number.



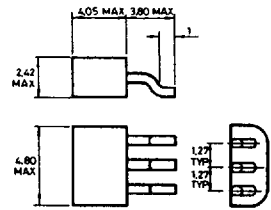
**STANDARD PACKAGE  
BS 3934 SO-94**



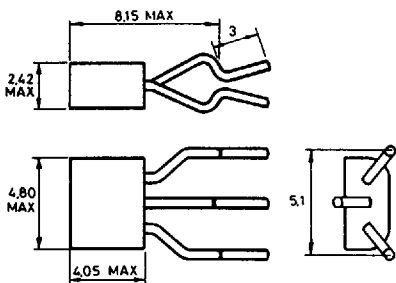
**SUFFIX 'K' LEAD FORMATION  
for TO-5 and TO-39 compatibility  
BS 3934 SO-95**



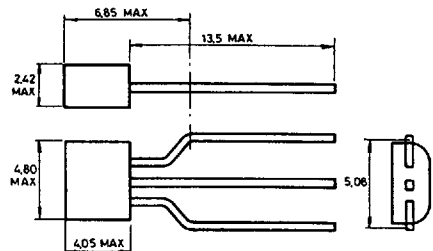
**SUFFIX 'L' LEAD FORMATION  
for TO-18 compatibility  
BS 3934 SO-97**



**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.