

## Transistors for TV Display Video Output Use

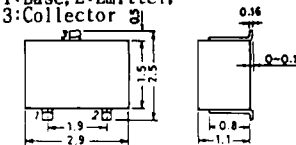
Features \*Excellent HF characteristic. \*Small reverse transfer capacitance. \*Complementary PNP and NPN types.

\*Adoption of MBIT, FBET processes. \*Highly resistant to dielectric breakdown.

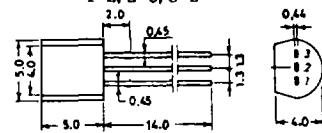
Case Outline (unit:mm)

SANYO:CP

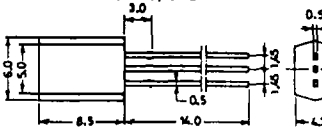
1:Base, 2:Emitter,  
3:Collector



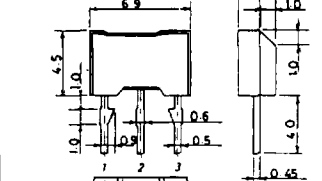
SANYO:NP  
1:E, 2:C, 3:B



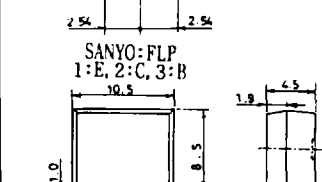
SANYO:MP  
1:E, 2:C, 3:B



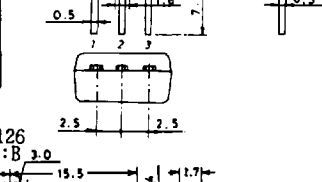
SANYO:NMP  
1:E, 2:C, 3:B



SANYO:FLP  
1:E, 2:C, 3:B



SANYO:TO-126ML  
1:E, 2:C, 3:B



SANYO:TO-220  
1:Base, 2:Collector, 3:Emitter

General-Purpose Type(\*: Tc=25°C) For PNP, (-) sign is omitted.

| Type No.        | Package  | Absolute Maximum Ratings/Ta=25°C |                         |                       |                       | Electrical Characteristics/Ta=25°C |                                            |                             |                         |                        |                 |
|-----------------|----------|----------------------------------|-------------------------|-----------------------|-----------------------|------------------------------------|--------------------------------------------|-----------------------------|-------------------------|------------------------|-----------------|
|                 |          | V <sub>CBO</sub><br>(V)          | V <sub>CEO</sub><br>(V) | I <sub>C</sub><br>(A) | P <sub>C</sub><br>(W) | f <sub>T</sub><br>typ<br>(MHz)     | V <sub>CE</sub> / I <sub>C</sub><br>(V/mA) | C <sub>ob</sub> typ<br>(PF) | C <sub>re</sub><br>(PF) | V <sub>CB</sub><br>(V) | h <sub>FE</sub> |
| 2SC2857         | NP       | 180                              | 180                     | 50m                   | 0.5                   | min50                              | 30 / 10                                    | 4.0                         | -                       | 10                     | 40 ~ 320        |
| 2SA1689/2SC4449 |          | 300                              | 300                     | 50m                   | 0.6                   | 70                                 | 30 / 10                                    | 2.4/1.5                     | 1.5/1.0                 | 30                     | 100 ~ 320       |
| 2SC5291         | FLP      | 180                              | 160                     | 1.5                   | 1.5                   | 120                                | 10 / 50                                    | 14                          | -                       | 10                     | 100 ~ 400       |
| 2SB1037/2SD1459 | TO-220   | 150                              | 150                     | 1.5                   | *30                   | 15/8                               | 5 / 100                                    | 2.0                         | -                       | 10                     | 70 ~ 200        |
| 2SC1755         |          | 300                              | 300                     | 0.2                   | *15                   | min50                              | 30 / 10                                    | 5.3                         | -                       | 50                     | 40 ~ 200        |
| 2SC4075         | TO-220ML | 300                              | 300                     | 0.2                   | *10                   | min50                              | 30 / 10                                    | 5.3                         | -                       | 50                     | 40 ~ 200        |

High-Definition CRT Display Use

|                 |          |     |     |     |     |     |         |         |         |    |          |
|-----------------|----------|-----|-----|-----|-----|-----|---------|---------|---------|----|----------|
| 2SA1580/2SC4104 | CP       | 70  | 60  | 50m | 0.2 | 700 | 10 / 10 | 1.7/1.3 | 1.3/1.0 | 10 | 60 ~ 270 |
| 2SA1433/2SC3504 |          | 70  | 60  | 50m | 0.9 | 700 | 10 / 10 | 1.7     | 1.3/1.0 | 10 | 60 ~ 320 |
| 2SA1370/2SC3467 | MP       | 200 | 200 | 0.1 | 1.0 | 150 | 30 / 10 | 2.6/1.7 | 1.7/1.2 | 30 | 40 ~ 320 |
| 2SA1371/2SC3468 |          | 300 | 300 | 0.1 | 1.0 | 150 | 30 / 10 | 3.1/2.6 | 2.3/1.8 | 30 | 40 ~ 320 |
| 2SA1710/2SC4490 | NMP      | 300 | 300 | 0.1 | 1.0 | 70  | 30 / 10 | 3.1/2.6 | 2.3/1.8 | 30 | 40 ~ 320 |
| 2SA1787/2SC4650 |          | 200 | 200 | 0.1 | 1.0 | 150 | 30 / 10 | 2.6/1.7 | 1.7/1.2 | 30 | 40 ~ 320 |
| 2SA1828/2SC4732 | FLP      | 200 | 200 | 0.1 | 1.3 | 150 | 30 / 10 | 2.6/1.7 | 1.7/1.2 | 30 | 60 ~ 320 |
| 2SA1829/2SC4733 |          | 300 | 300 | 0.1 | 1.3 | 150 | 30 / 10 | 3.1/2.6 | 2.3/1.8 | 30 | 60 ~ 320 |
| 2SC4884         | TO-126   | 300 | 300 | 0.1 | 1.5 | 70  | 30 / 10 | 2.6     | 1.8     | 30 | 60 ~ 320 |
| 2SA1352/2SC3416 |          | 200 | 200 | 0.1 | 1.2 | 70  | 30 / 10 | 2.6/1.7 | 1.7/1.2 | 30 | 40 ~ 320 |
| 2SA1353/2SC3417 | TO-126   | 300 | 300 | 0.1 | 1.2 | 70  | 30 / 10 | 3.1/2.6 | 2.3/1.8 | 30 | 40 ~ 320 |
| 2SA1380/2SC3502 |          | 200 | 200 | 0.1 | 1.2 | 150 | 30 / 10 | 2.6/1.7 | 1.7/1.2 | 30 | 40 ~ 320 |
| 2SA1381/2SC3503 | TO-126ML | 300 | 300 | 0.1 | 1.2 | 150 | 30 / 10 | 3.1/2.6 | 2.3/1.8 | 30 | 40 ~ 320 |
| 2SA1478/2SC3788 |          | 200 | 200 | 0.1 | 1.3 | 150 | 30 / 10 | 2.6/1.7 | 1.7/1.2 | 30 | 40 ~ 320 |
| 2SA1479/2SC3789 | TO-126ML | 300 | 300 | 0.1 | 1.5 | 70  | 30 / 10 | 3.1/2.6 | 2.3/1.8 | 30 | 40 ~ 320 |
| 2SA1480/2SC3790 |          | 300 | 300 | 0.1 | 1.5 | 150 | 30 / 10 | 3.1/2.6 | 2.3/1.8 | 30 | 40 ~ 320 |
| 2SC4217         | TO-220   | 300 | 300 | 0.2 | 1.5 | 70  | 10 / 10 | 3.5     | -       | 50 | 40 ~ 200 |
| 2SC4378         |          | 300 | 300 | 0.2 | 1.5 | 100 | 30 / 10 | 3.9     | 3.2     | 30 | 60 ~ 320 |
| 2SC4188         | TO-220   | 200 | 200 | 0.1 | *10 | 150 | 30 / 10 | 1.8     | 1.3     | 30 | 40 ~ 320 |

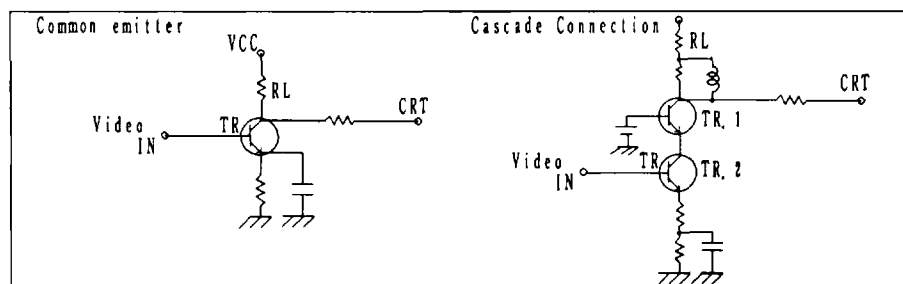
\*Classification by h<sub>FE</sub>

2SB1037/2SD1459(70 ~ 200)

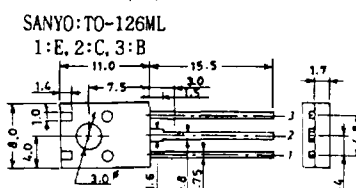
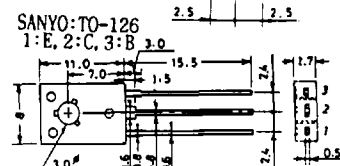
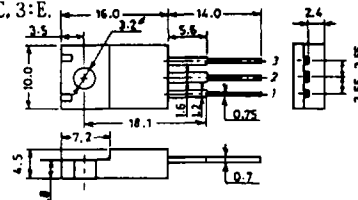
|           |          |           |           |
|-----------|----------|-----------|-----------|
| 40 C 80   | 60 D 120 | 100 E 200 | 160 F 320 |
| (CP type) | 60 3 120 | 90 4 180  | 135 5 270 |

|          |           |
|----------|-----------|
| 70 Q 140 | 100 R 200 |
|----------|-----------|

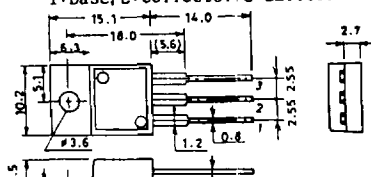
\*Equivalent Circuit for Video Output Use



SANYO:TO-220ML 1:B, 2:C, 3:E



SANYO:TO-220  
1:Base, 2:Collector, 3:Emitter



These specifications are subject to change without notice.