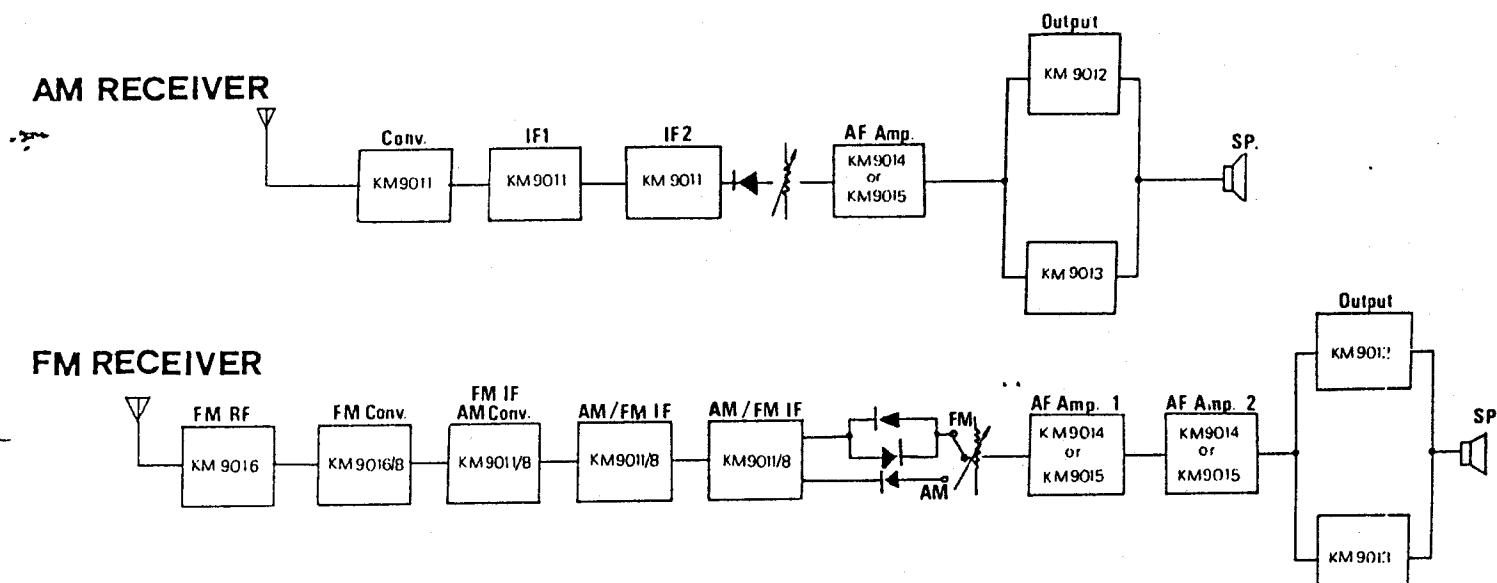


## SELECTION GUIDE FOR AM / FM RADIO TRANSISTOR KIT

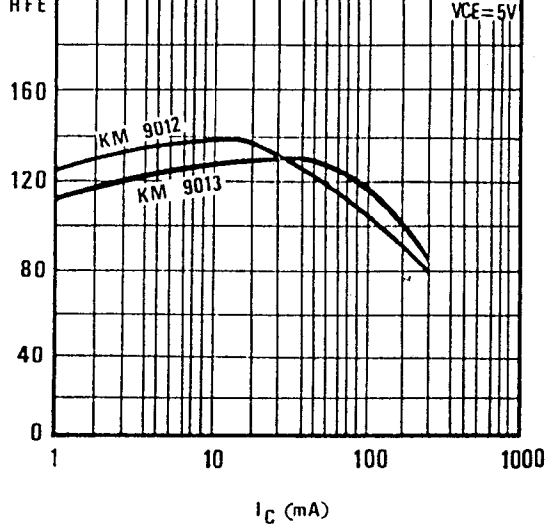


| TYPE    | POLARITY | APPLICATIONS              | CASE                                                                                                                                                                                                          |
|---------|----------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KM 9011 | NPN      | AM / FM IF , AM CONVERTER | <b>TO-92A</b><br><br><b>EBC</b><br> |
| KM 9012 | PNP      | AUDIO POWER OUTPUT        |                                                                                                                                                                                                               |
| KM 9013 | NPN      | AUDIO POWER OUTPUT        |                                                                                                                                                                                                               |
| KM 9014 | NPN      | AUDIO DRIVER              |                                                                                                                                                                                                               |
| KM 9015 | PNP      | AUDIO DRIVER              |                                                                                                                                                                                                               |
| KM 9016 | NPN      | FM RF                     |                                                                                                                                                                                                               |
| KM 9018 | NPN      | AM / FM IF , FM CONVERTER |                                                                                                                                                                                                               |

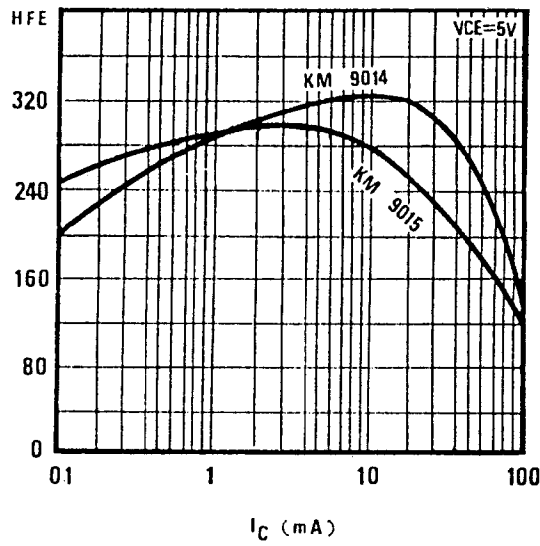
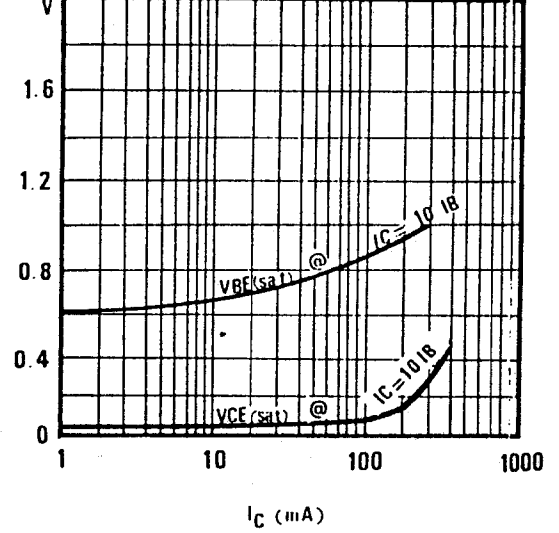


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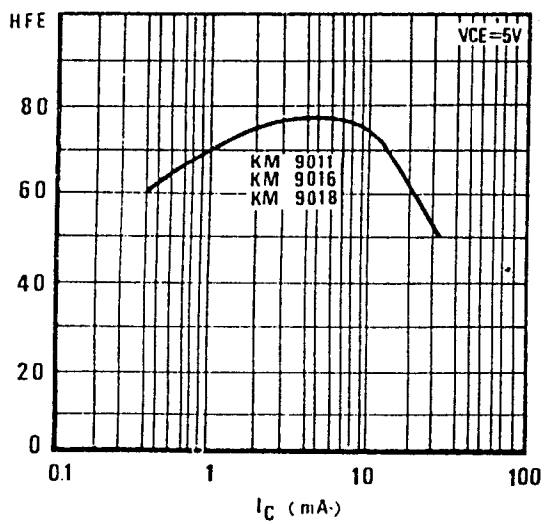
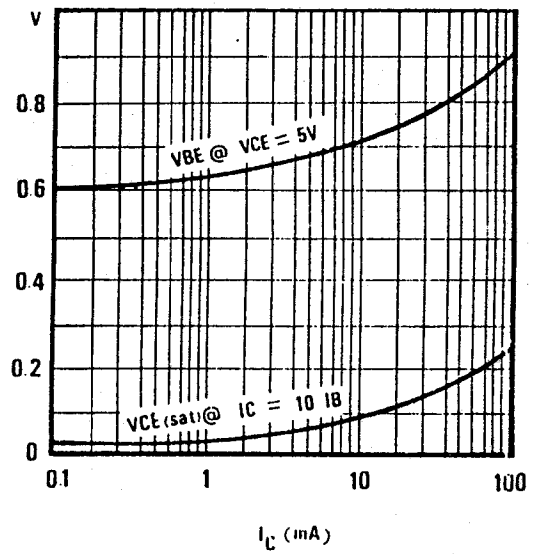
38 Hung To Road, Kwun Tong, Kowloon, Hong Kong. Cable: Microtron, Hong Kong. Telex: 43510 Micro HX.  
P.O. Box 9477, Kwun Tong. Tel: 3-430181-6, 3-893363, 3-892423, 3-898221



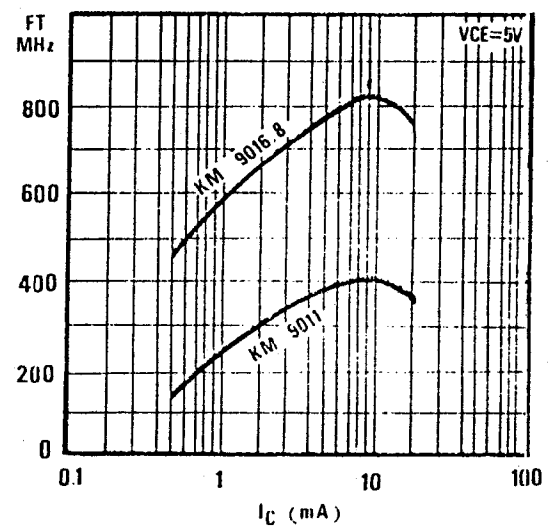
KM 9013



KM 9014  
KM 9015



KM 9011  
KM 9016  
KM 9018



| DEVICE | SPECIFICATIONS | [T <sub>A</sub> = 25°C unless otherwise specified] |
|--------|----------------|----------------------------------------------------|
|--------|----------------|----------------------------------------------------|

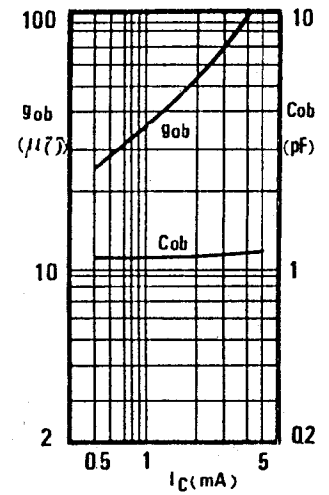
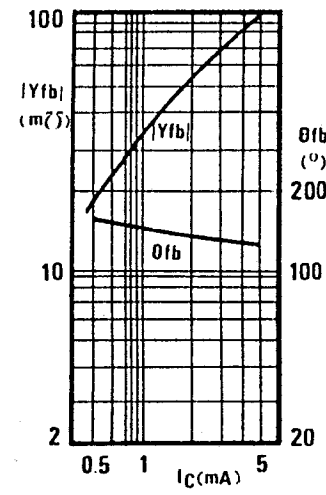
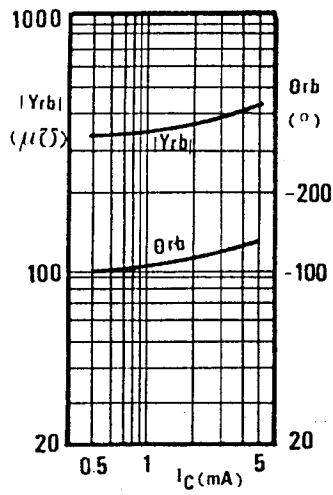
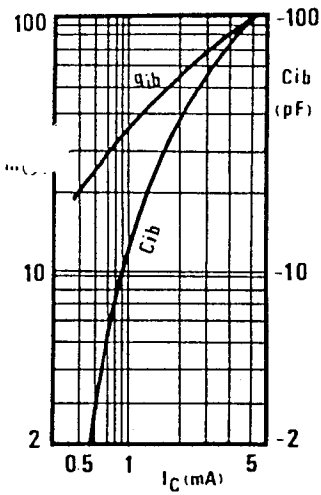
| TYPE    | MAXIMUM RATINGS         |                        |                        |                 | ELECTRICAL CHARACTERISTICS |     |                        |      |                             |                        |                         |     |                         |                        |                              |     |     |                        |                        |     |     |                        |    |
|---------|-------------------------|------------------------|------------------------|-----------------|----------------------------|-----|------------------------|------|-----------------------------|------------------------|-------------------------|-----|-------------------------|------------------------|------------------------------|-----|-----|------------------------|------------------------|-----|-----|------------------------|----|
|         | V <sub>CE0</sub><br>(V) | V <sub>E0</sub><br>(V) | P <sub>D</sub><br>(mW) | H <sub>FE</sub> | I <sub>CB0</sub><br>(nA)   |     | V <sub>BE</sub><br>(v) |      | V <sub>CE(sat)</sub><br>(v) |                        | f <sub>T</sub><br>(MHz) |     | C <sub>ob</sub><br>(pF) |                        | C <sub>crbb'</sub><br>(pSec) |     |     |                        |                        |     |     |                        |    |
|         |                         |                        |                        |                 | max                        | min | typ                    | max  | I <sub>C</sub><br>(mA)      | V <sub>CE</sub><br>(v) | typ                     | max | I <sub>C</sub><br>(mA)  | I <sub>B</sub><br>(mA) |                              | min | typ | I <sub>C</sub><br>(mA) | V <sub>CE</sub><br>(v) | typ | max | V <sub>CB</sub><br>(v) |    |
| KM 9011 | 25                      | 20                     | 3                      | 300             | 50                         | 18  | 0.67                   | 0.85 | 1                           | 5                      | 0.08                    | 0.5 | 10                      | 1                      | 150                          | 220 | 1   | 5                      | 19                     | 2.5 | 10  |                        | 22 |
| KM 9012 | 25                      | 20                     | 5                      | 500             | 500                        | 18  | 0.7                    | 0.85 | 10                          | 1                      | 0.2                     | 0.6 | 250                     | 25                     |                              |     |     |                        |                        |     |     |                        |    |
| KM 9013 | 25                      | 20                     | 5                      | 500             | 500                        | 18  | 0.7                    | 0.85 | 10                          | 1                      | 0.2                     | 0.6 | 250                     | 25                     |                              |     |     |                        |                        |     |     |                        |    |
| KM 9014 | 25                      | 20                     | 5                      | 500             | 50                         | 18  | 0.63                   | 0.85 | 1                           | 5                      | 0.07                    | 0.5 | 10                      | 1                      | 50                           | 140 | 1   | 5                      | 2.7                    | 6   | 10  |                        |    |
| KM 9015 | 25                      | 20                     | 5                      | 500             | 50                         | 18  | 0.64                   | 0.85 | 1                           | 5                      | 0.07                    | 0.5 | 10                      | 1                      | 50                           | 120 | 1   | 5                      | 3.5                    | 6   | 10  |                        |    |
| KM 9016 | 25                      | 20                     | 3                      | 300             | 50                         | 18  | 0.72                   | 0.85 | 1                           | 5                      | 0.14                    | 0.5 | 10                      | 1                      | 500                          | 800 | 5   | 5                      | 11                     | 1.6 | 10  |                        | 12 |
| KM 9018 | 20                      | 15                     | 3                      | 300             | 50                         | 18  | 0.72                   | 0.85 | 1                           | 5                      | 0.14                    | 0.5 | 10                      | 1                      | 400                          | 800 | 5   | 5                      | 1.3                    | 1.7 | 10  |                        | 18 |

$$V_{CE} = 5V \quad f = 31.8\text{MHz}$$
$$2/ : \quad NF @ I_C = 1 \text{ mA} \quad V_{CE} = 5 \text{ V} \quad R_G = 500 \Omega \quad f = 1 \text{ MHz}$$
$$NF @ I_C = 0.1 \text{ mA} \quad V_{CE} = 5 \text{ V} \quad R_G = 10 \text{ k}\Omega \quad f = 30 \text{ Hz to } 15 \text{ kHz}$$
$$f_T : f_{NF} @ I_C = 1 \text{ mA} \quad V_{CE} = 5 \text{ V} \quad R_G = 50 \Omega \quad f = 100 \text{ MHz}$$

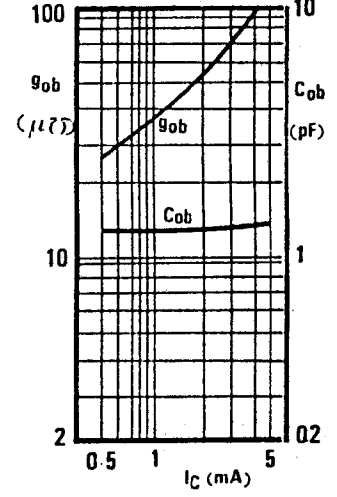
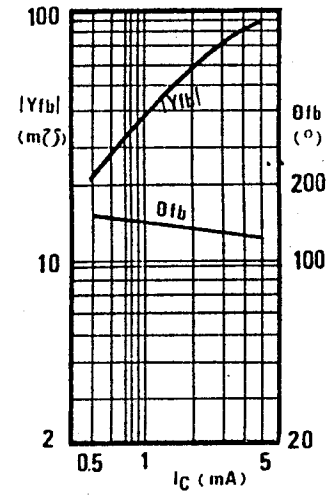
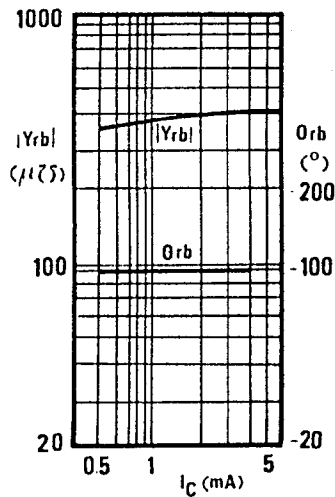
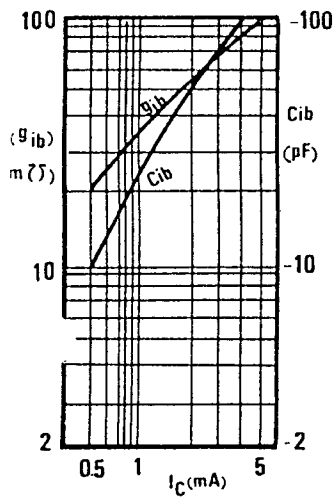
## CLASSIFICATION OF HFE GROUPS

| TYPE NO.                      | GROUP | A        | B         | C         | D          | E        | F        | G         | H         | I         | @ IC / VC |
|-------------------------------|-------|----------|-----------|-----------|------------|----------|----------|-----------|-----------|-----------|-----------|
| KM 9011<br>KM 9016<br>KM 9018 |       |          |           |           | 28 - 45    | 39 - 60  | 54 - 80  | 72 - 108  | 97 - 146  | 132 - 198 | 1mA / 5V  |
| KM 9014<br>KM 9015            |       | 60 - 155 | 100 - 300 | 200 - 600 | 400 - 1000 |          |          |           |           |           | 1mA / 5V  |
| KM 9012<br>KM 9013            |       |          |           |           | 64 - 91    | 78 - 112 | 96 - 135 | 118 - 156 | 144 - 202 | 180 - 350 | 50mA / 1V |

KM 9016 [ COMMON BASE  $f = 100\text{MHz}$   $V_{CB} = 5\text{V}$  ]



KM 9018 [ COMMON BASE  $f = 100\text{MHz}$   $V_{CB} = 5\text{V}$  ]



KM 9011 [ COMMON EMITTER  $f = 10.7\text{MHz}$   $V_{CB} = 5\text{V}$  ]

