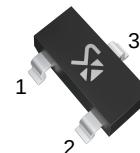


## PNP Silicon Epitaxial Planar Transistor

### Features

- Excellent hFE Linearity:  $h(2)$ -25(Min.) at  $V_{CE}=-6V$ ,  $I_C=-400mA$ .
- Complementary to KTC3876.

### SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

### MAXIMUM RATINGS ( $T_A=25^{\circ}C$ unless otherwise noted)

| Symbol    | Parameter                     | Value    | Units       |
|-----------|-------------------------------|----------|-------------|
| $V_{CBO}$ | Collector-Base Voltage        | -35      | V           |
| $V_{CEO}$ | Collector-Emitter Voltage     | -30      | V           |
| $V_{EBO}$ | Emitter-Base Voltage          | -5       | V           |
| $I_C$     | Collector Current -Continuous | -500     | mA          |
| $P_C$     | Collector Power Dissipation   | 150      | mW          |
| $T_j$     | Junction Temperature          | 150      | $^{\circ}C$ |
| $T_{stg}$ | Storage Temperature           | -55-+150 | $^{\circ}C$ |

### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}C$ unless otherwise specified)

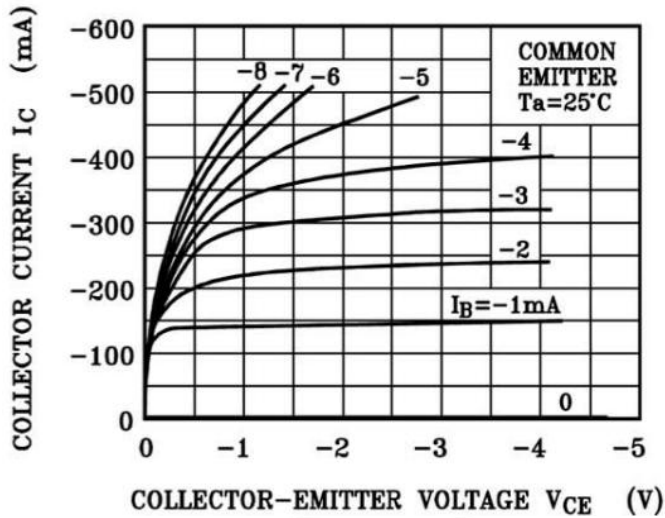
| Parameter                            | Symbol        | Test conditions                                              | MIN      | TYP  | MAX   | UNIT    |
|--------------------------------------|---------------|--------------------------------------------------------------|----------|------|-------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C = -10\mu A, I_E = 0$                                    | -35      |      |       | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C = -1mA, I_B = 0$                                        | -30      |      |       | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E = -10\mu A, I_C = 0$                                    | -5       |      |       | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB} = -35V, I_E = 0$                                     |          |      | -0.1  | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB} = -5V, I_C = 0$                                      |          |      | -0.1  | $\mu A$ |
| DC current gain                      | $h_{FE}$      | $V_{CE} = -1V, I_C = -100mA$<br>$V_{CE} = -6V, I_C = -400mA$ | 70<br>25 |      | 400   |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100mA, I_B = -10mA$                                  |          | -0.1 | -0.25 | V       |
| Collector-emitter saturation voltage | $V_{BE(on)}$  | $V_{CE} = -1V, I_C = -100mA$                                 |          | -0.8 | -1    | V       |
| Transition frequency                 | $f_T$         | $V_{CE} = -6V, I_C = -20mA$<br>$f = 100MHz$                  |          | 200  |       | MHz     |
| Collector base capacitance           | $C_{cb}$      | $V_{CB} = -6V, I_E = 0, f = 1MHz$                            |          | 13   |       | PF      |

### CLASSIFICATION OF $h_{FE}$

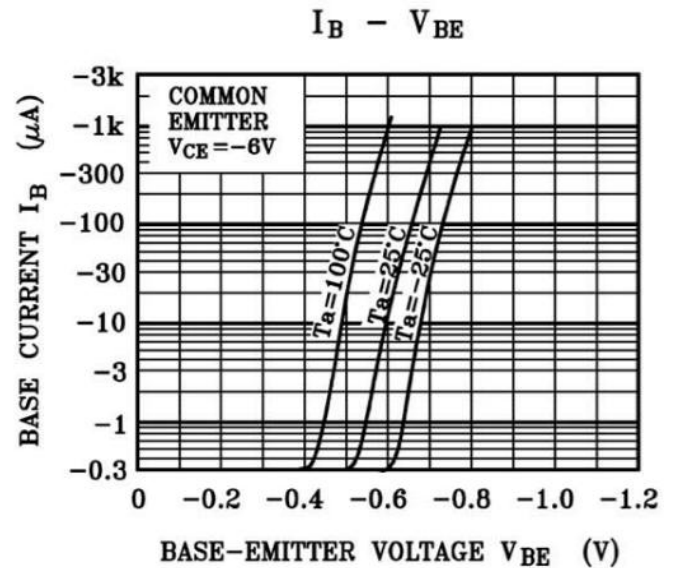
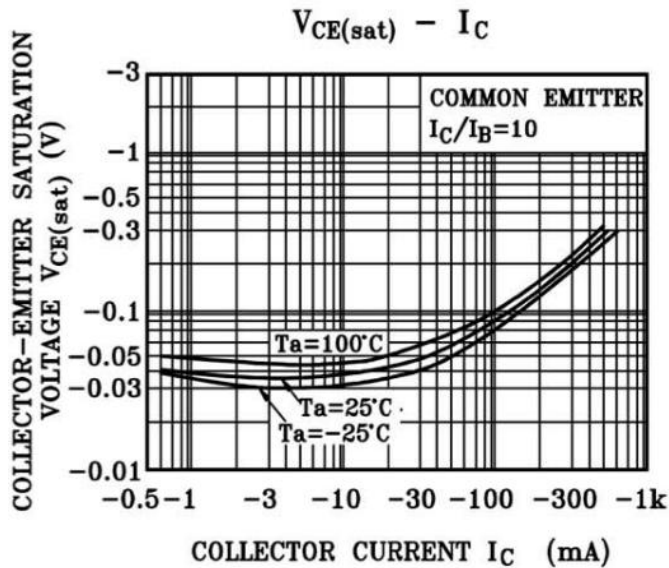
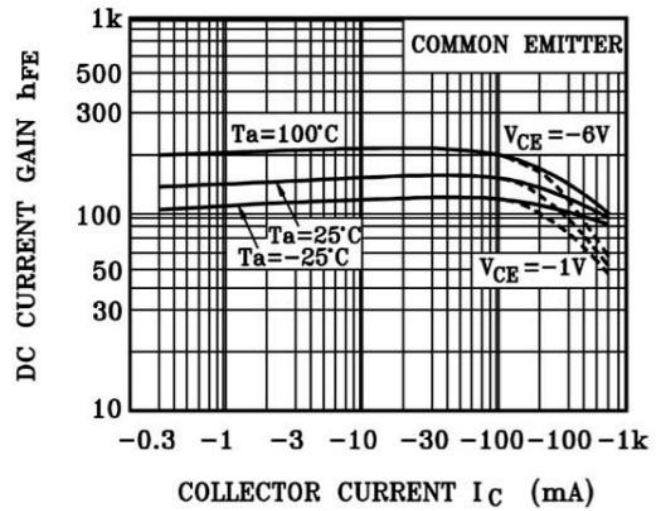
| Rank  | O      | Y       | GR      |
|-------|--------|---------|---------|
| Range | 70-140 | 120-240 | 200-400 |

## Typical characteristics

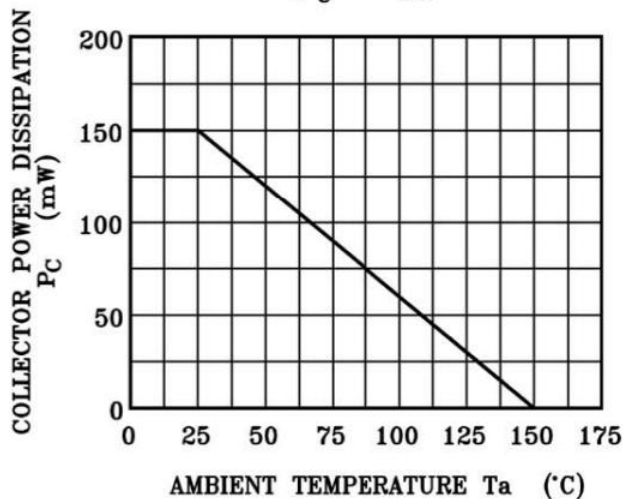
$I_C - V_{CE}$  (LOW VOLTAGE REGION)



$h_{FE} - I_C$



$P_C - T_a$



## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

