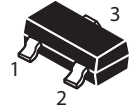
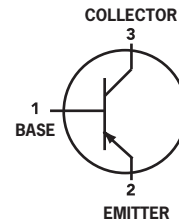



**WTA8921**
**PNP Silicon Transistors**
**\* “G” Lead(Pb)-Free**

**SOT-23**
**MAXIMUM RATINGS (Ta=25°C)**

| Rating                        | Symbol           | Value | Unit            |
|-------------------------------|------------------|-------|-----------------|
| Collector-Emitter Voltage     | V <sub>CEO</sub> | -30   | V <sub>dc</sub> |
| Collector-Base Voltage        | V <sub>CBO</sub> | -35   | V <sub>dc</sub> |
| Emitter-Base Voltage          | V <sub>EBO</sub> | -5.0  | V <sub>dc</sub> |
| Collector Current -Continuous | I <sub>C</sub>   | -800  | mAdc            |

**THERMAL CHARACTERISTICS**

| Characteristics                                                            | Symbol                            | Value       | Unit  |
|----------------------------------------------------------------------------|-----------------------------------|-------------|-------|
| Total Device Dissipation FR-5 Board <sup>(1)</sup><br>T <sub>A</sub> =25°C | P <sub>D</sub>                    | 200         | mW    |
| Derate above 25°C                                                          |                                   | 1.6         | mW/°C |
| Thermal Resistance, Junction Ambient                                       | R <sub>θJA</sub>                  | 625         | °C/W  |
| Junction and Storage, Temperature                                          | T <sub>J</sub> , T <sub>stg</sub> | -55 to +150 | °C    |

**Device Marking**

WTA8921=IO, IY

**ELECTRICAL CHARACTERISTICS**

| Characteristics                                                                     | Symbol               | Min  | Max  | Unit            |
|-------------------------------------------------------------------------------------|----------------------|------|------|-----------------|
| Collector-Emitter Breakdown Voltage (I <sub>C</sub> = -10 mAdc, I <sub>B</sub> =0)  | V <sub>(BR)CEO</sub> | -30  | -    | V <sub>dc</sub> |
| Collector-Base Breakdown Voltage (I <sub>C</sub> = -1 uAdc, I <sub>E</sub> =0)      | V <sub>(BR)CBO</sub> | -35  | -    | V <sub>dc</sub> |
| Emitter-Base Breakdown Voltage (I <sub>E</sub> = -1 uAdc, I <sub>C</sub> =0)        | V <sub>(BR)EBO</sub> | -5.0 | -    | V <sub>dc</sub> |
| Collector Cutoff Current (V <sub>CB</sub> = -30V <sub>dc</sub> , I <sub>E</sub> =0) | I <sub>CBO</sub>     | -    | -1.0 | uAdc            |
| Emitter Cutoff Current (V <sub>EB</sub> = -5.0 V <sub>dc</sub> , I <sub>C</sub> =0) | I <sub>EBO</sub>     | -    | -1.0 | uAdc            |

1. FR-5=1.0 ×0.75 ×0.062 in

WTA8921



ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted) (Countinued)

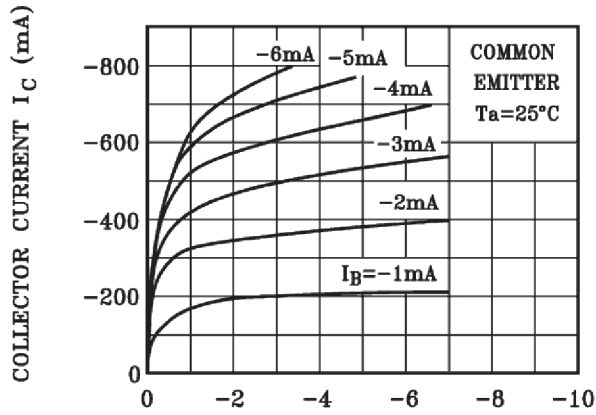
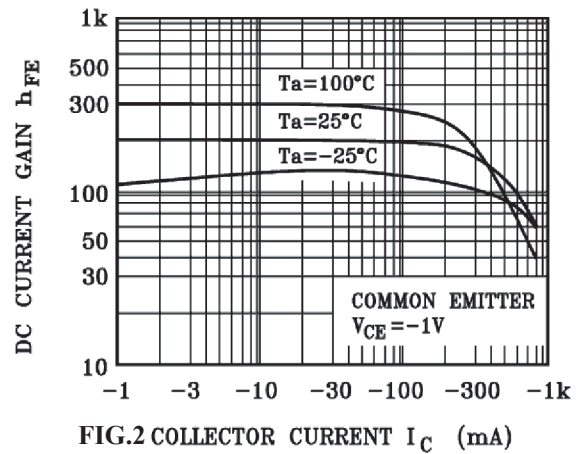
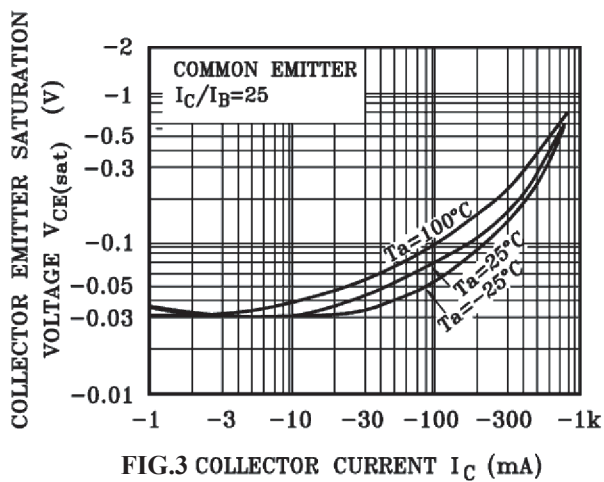
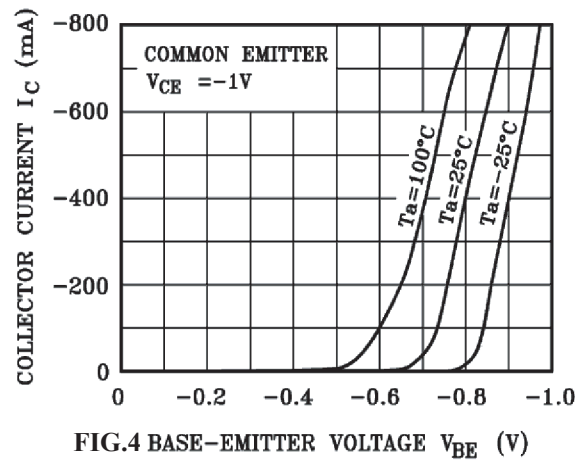
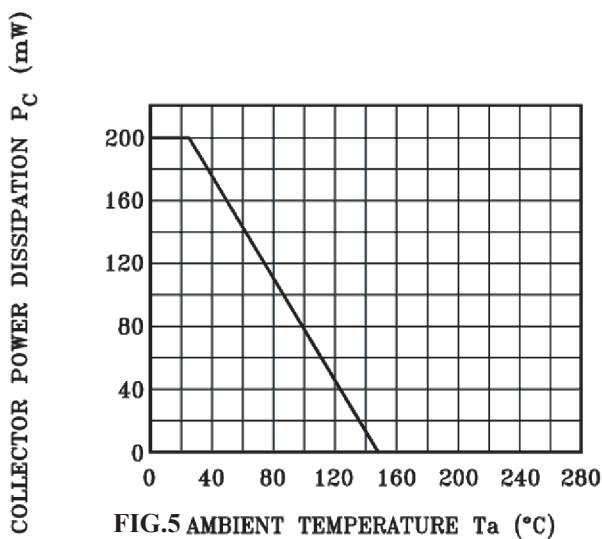
| Characteristics | Symbol | Min | Typ | Max | Unit |
|-----------------|--------|-----|-----|-----|------|
|-----------------|--------|-----|-----|-----|------|

ON CHARACTERISTICS

|                                                                                 |          |     |     |      |     |
|---------------------------------------------------------------------------------|----------|-----|-----|------|-----|
| DC Current Gain<br>(IC= -100 mAdc, VCE= -1 Vdc)<br>(IC= -800 mAdc, VCE= -1 Vdc) | hFE (1)  | 100 | -   | 320  | -   |
|                                                                                 | hFE (2)  | 40  | -   | -    | -   |
| Collector-Emitter Saturation Voltage<br>(IC= -500 mAdc, IB = -20mAdc)           | VCE(sat) | -   | -   | -0.4 | Vdc |
| Output Capacitance<br>(VCB=-10Vdc, IE=0, f=1MHZ)                                | Cob      | -   | 2.0 | -    | PF  |
| Transition Frequency<br>(IC= -10mAdc, VCE=-5 Vdc, f=30MHz)                      | fT       | 80  | -   | -    | MHz |

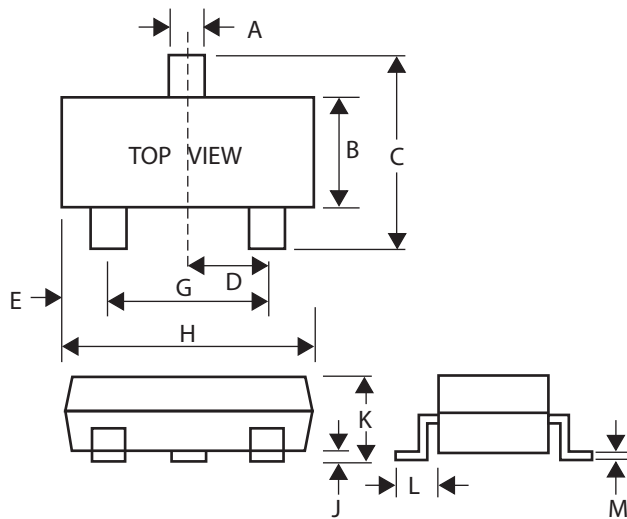
CLASSIFICATION OF hFE (1)

|       |         |         |
|-------|---------|---------|
| Rank  | O       | Y       |
| Range | 100-200 | 160-320 |

**WTA8921****WEITRON**FIG.1 COLLECTOR-EMITTER VOLTAGE  $V_{CE}$  (V)FIG.2 COLLECTOR CURRENT  $I_C$  (mA)FIG.3 COLLECTOR CURRENT  $I_C$  (mA)FIG.4 BASE-EMITTER VOLTAGE  $V_{BE}$  (V)FIG.5 AMBIENT TEMPERATURE  $T_a$  ( $^\circ\text{C}$ )

**WTA8921****WEITRON****SOT-23 Package Outline Dimensions**

Unit:mm



| Dim | Min   | Max  |
|-----|-------|------|
| A   | 0.35  | 0.51 |
| B   | 1.19  | 1.40 |
| C   | 2.10  | 3.00 |
| D   | 0.85  | 1.05 |
| E   | 0.46  | 1.00 |
| G   | 1.70  | 2.10 |
| H   | 2.70  | 3.10 |
| J   | 0.01  | 0.13 |
| K   | 0.89  | 1.10 |
| L   | 0.30  | 0.61 |
| M   | 0.076 | 0.25 |