



**浩畅半导体**  
www.szhaochang.cn

**KTA1505** TRANSISTOR (PNP)

**SOT-23 Plastic-Encapsulate Transistors**

产  
品  
规  
格  
书

承  
认  
书

客户确认：

公司签章：

部门

工程部

品保部

采购部

签名

日期



**SOT-23 Plastic-Encapsulate Transistors**

**KTA1505** TRANSISTOR (PNP)

**FEATURES**

- Excellent  $h_{FE}$  linearity:
- Complementary to KTC3876

**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 | $^{\circ}C$ |



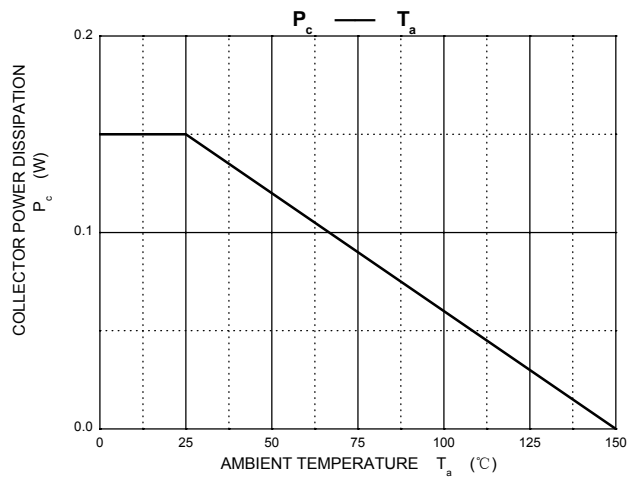
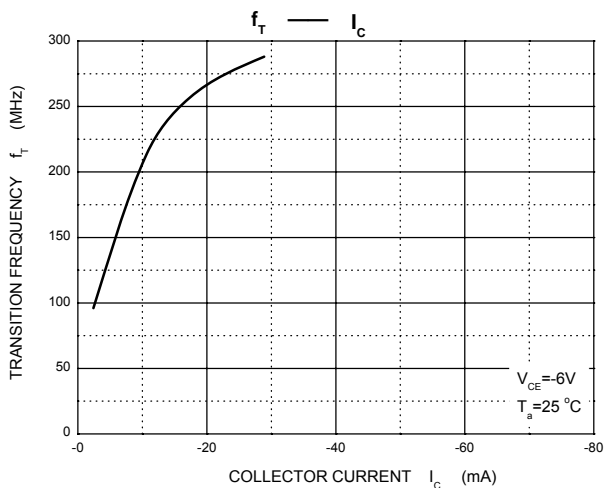
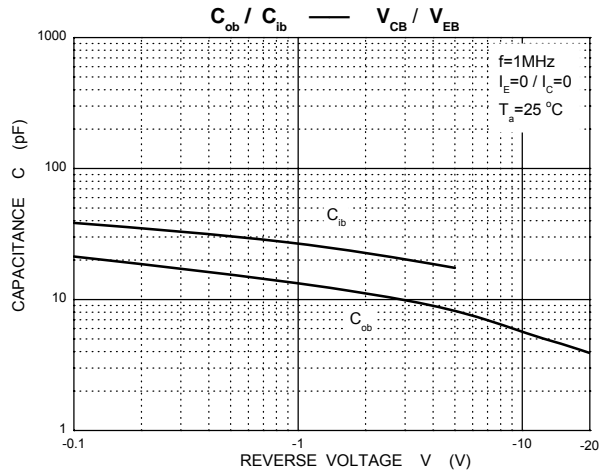
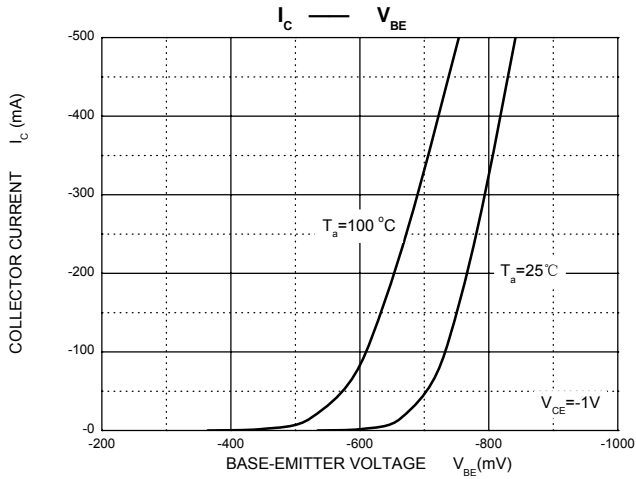
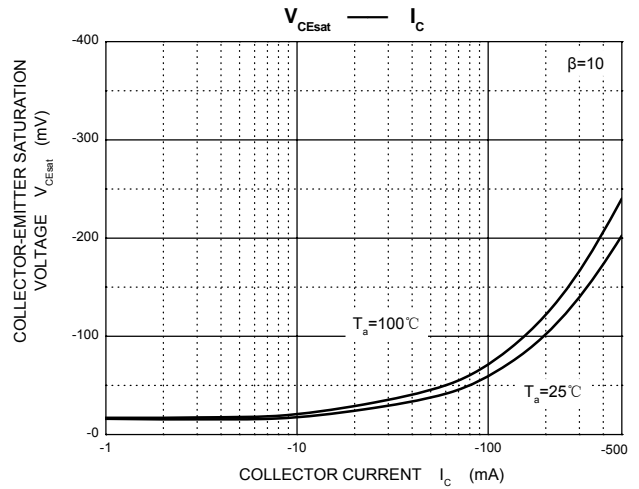
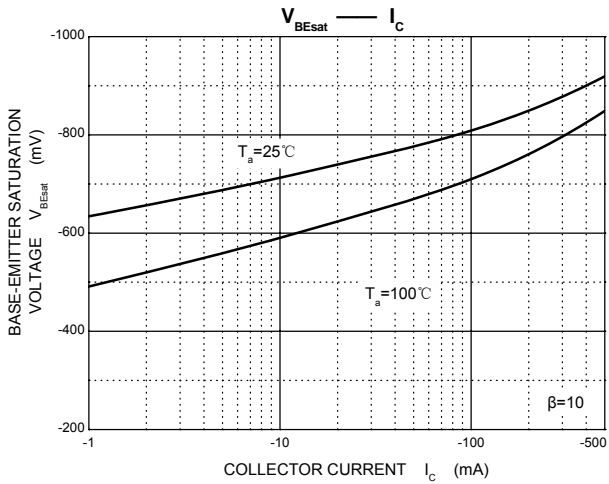
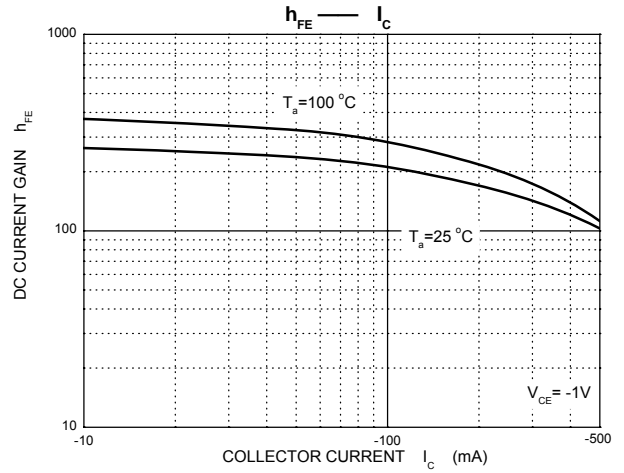
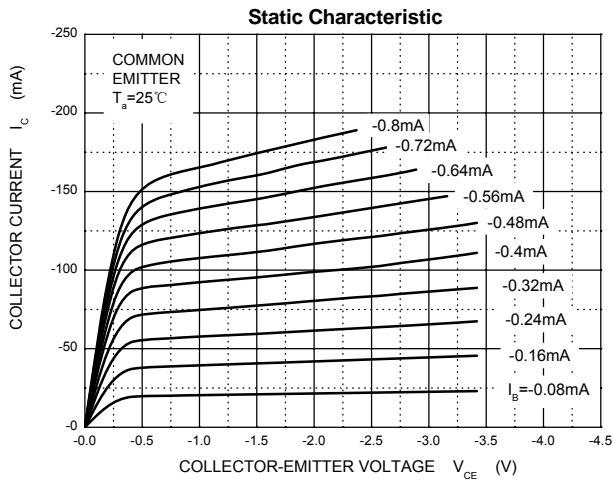
**ELECTRICAL CHARACTERISTICS** ( $T_{amb}=25^{\circ}C$  unless otherwise specified)

| Parameter                            | Symbol        | Test conditions             | MIN | TYP | MAX   | UNIT    |
|--------------------------------------|---------------|-----------------------------|-----|-----|-------|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=-100\mu A, I_E=0$      | -35 |     |       | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=-1mA, I_B=0$           | -30 |     |       | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=-100\mu A, I_C=0$      | -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                      | $h_{FE(1)}$   | $V_{CE}=-1V, I_C=-100mA$    | 70  |     | 400   |         |
|                                      | $h_{FE(2)}$   | $V_{CE}=-6V, I_C=-400mA$    | 25  |     |       |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=-100mA, I_B=-10mA$     |     |     | -0.25 | V       |
| Base-emitter voltage                 | $V_{BE}$      | $V_{CE}=-1V, I_C=-100mA$    |     |     | -1    | V       |
| Transition frequency                 | $f_T$         | $V_{CE}=-6V, I_C=-20mA$     |     | 200 |       | MHz     |
| Collector output capacitance         | $C_{ob}$      | $V_{CB}=-6V, I_E=0, f=1MHz$ |     | 13  |       | pF      |

**CLASSIFICATION OF  $h_{FE(1)}$**

| Rank    | O      | Y       | GR      |
|---------|--------|---------|---------|
| Range   | 70-140 | 120-240 | 200-400 |
| Marking | AZO    | AZY     | AZG     |

# Typical Characteristics

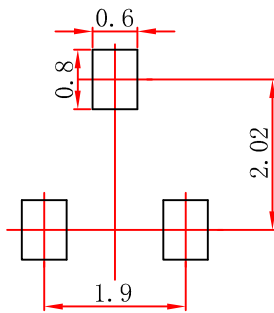


## SOT-23 Package Outline Dimensions



| Symbol | Dimensions In Millimeters |       | Dimensions In Inches |       |
|--------|---------------------------|-------|----------------------|-------|
|        | Min                       | Max   | Min                  | Max   |
| A      | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1     | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2     | 0.900                     | 1.050 | 0.035                | 0.041 |
| b      | 0.300                     | 0.500 | 0.012                | 0.020 |
| c      | 0.080                     | 0.150 | 0.003                | 0.006 |
| D      | 2.800                     | 3.000 | 0.110                | 0.118 |
| E      | 1.200                     | 1.400 | 0.047                | 0.055 |
| E1     | 2.250                     | 2.550 | 0.089                | 0.100 |
| e      | 0.950 TYP                 |       | 0.037 TYP            |       |
| e1     | 1.800                     | 2.000 | 0.071                | 0.079 |
| L      | 0.550 REF                 |       | 0.022 REF            |       |
| L1     | 0.300                     | 0.500 | 0.012                | 0.020 |
| θ      | 0°                        | 8°    | 0°                   | 8°    |

## SOT-23 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.