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| SANYO | No.3011 | 2SA1682 |
| | | PNP Epitaxial Planar Silicon Transistor TV Camera Deflection, High-Voltage Driver Applications |

Features

- High breakdown voltage ($V_{CEO} \geq 300V$)
- Small reverse transfer capacitance and excellent high frequency characteristic ($c_{re} : 1.5pF$ typ)
- Excellent DC current gain ratio (h_{FE} ratio : 1.0 typ)
- Adoption of FBET process

Absolute Maximum Ratings at $T_a = 25^\circ C$

| | | | unit |
|------------------------------|-----------|-------------|------------|
| Collector to Base Voltage | V_{CBO} | -300 | V |
| Collector to Emitter Voltage | V_{CEO} | -300 | V |
| Emitter to Base Voltage | V_{EBO} | -5 | V |
| Collector Current | I_C | -50 | mA |
| Collector Current(Pulse) | I_{CP} | -100 | mA |
| Collector Dissipation | P_C | 250 | mW |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ C$ |

Electrical Characteristics at $T_a = 25^\circ C$

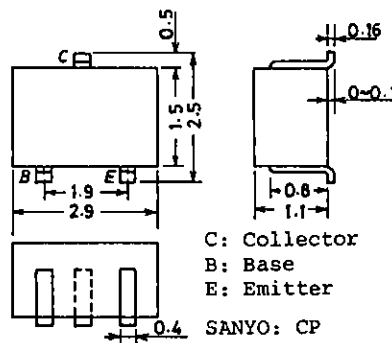
| | | | min | typ | max | unit |
|------------------------------|----------------|--------------------------------|------|-----|------|---------|
| Collector Cutoff Current | I_{CBO} | $V_{CB} = -200V, I_E = 0$ | | | -0.1 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = -4V, I_C = 0$ | | | -0.1 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE} = -6V, I_C = -0.1mA$ | 100* | | 320* | |
| | $h_{FE(2)}$ | $V_{CE} = -6V, I_C = -1mA$ | 100 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE} = -30V, I_C = -10mA$ | | 70 | | MHz |
| C-E Saturation Voltage | $V_{CE(sat)}$ | $I_C = -10mA, I_B = -1mA$ | | | -1.0 | V |
| B-E Saturation Voltage | $V_{BE(sat)}$ | $I_C = -10mA, I_B = -1mA$ | | | -1.0 | V |
| C-B Breakdown Voltage | $V_{(BR)CBO}$ | $I_C = -10\mu A, I_E = 0$ | -300 | | | V |
| C-E Breakdown Voltage | $V_{(BR)CEO}$ | $I_C = -1mA, R_{BE} = \infty$ | -300 | | | V |
| E-B Breakdown Voltage | $V_{(BR)EBO}$ | $I_E = -10\mu A, I_C = \infty$ | -5 | | | V |
| Output Capacitance | c_{ob} | $V_{CB} = -30V, f = 1MHz$ | | 2.4 | | pF |
| Reverse Transfer Capacitance | c_{re} | $V_{CB} = -30V, f = 1MHz$ | | 1.5 | | pF |
| DC Current Gain Ratio | h_{FE} ratio | $h_{FE(1)}/h_{FE(2)}$ | | 1.0 | | |

* : The 2SA1682 is classified by 0.1mA h_{FE} as follows :

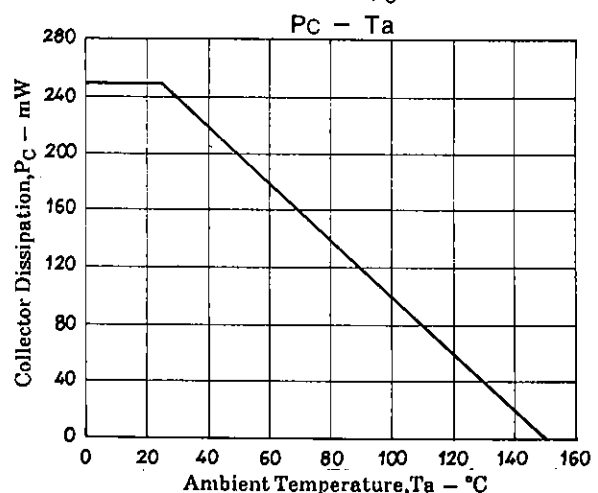
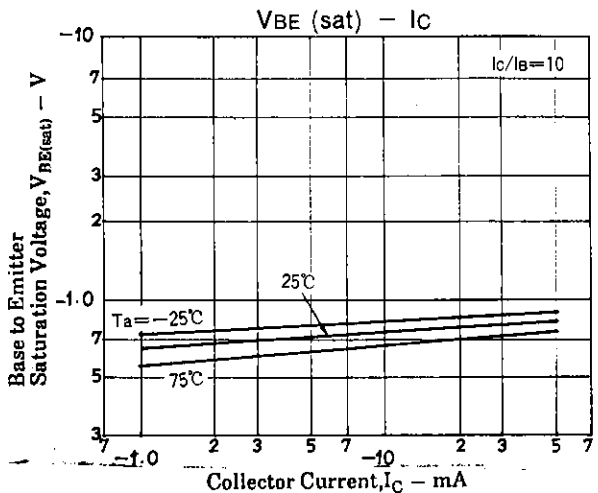
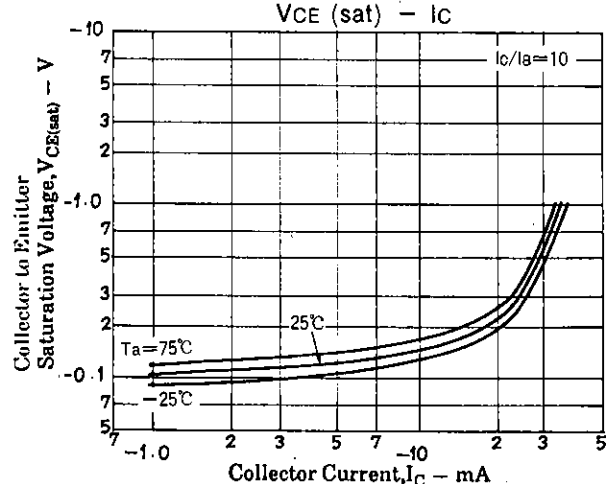
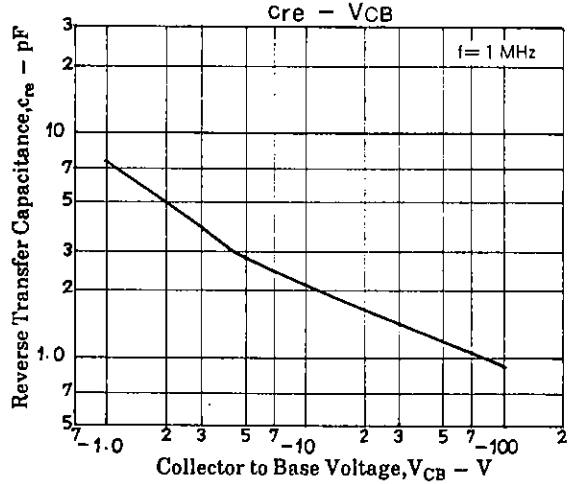
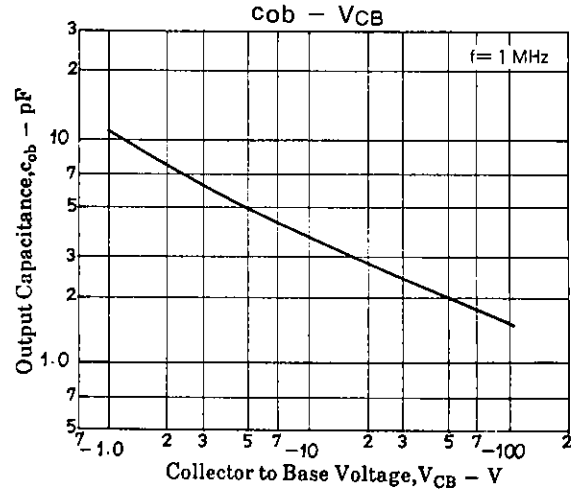
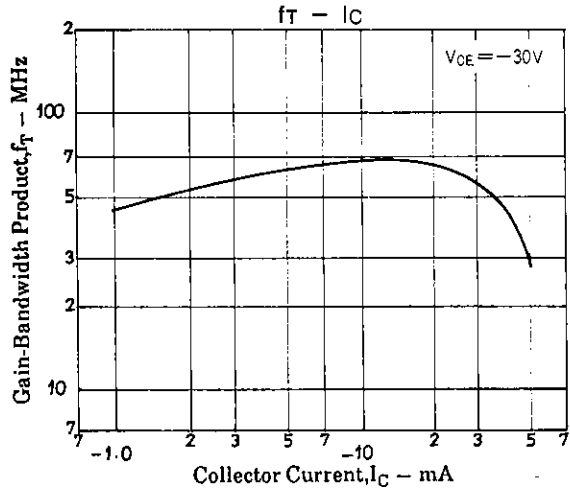
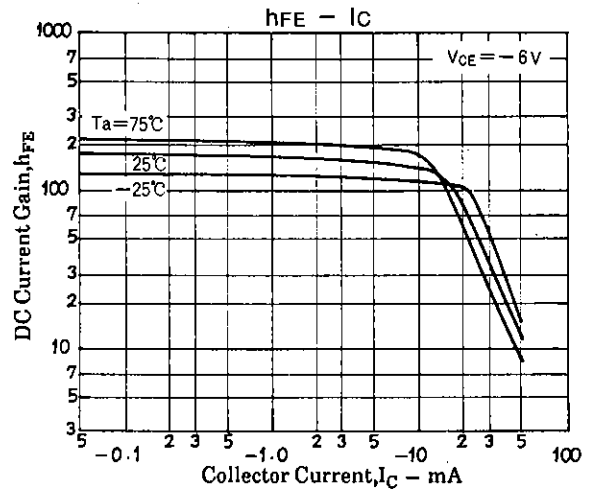
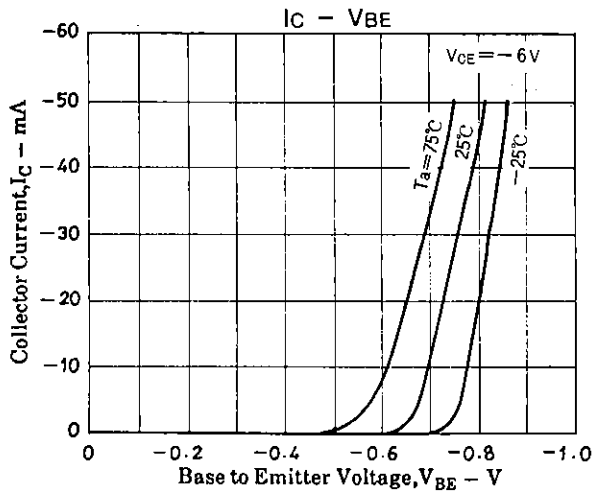
| | | | | | |
|-----|---|-----|-----|---|-----|
| 100 | 4 | 200 | 160 | 5 | 320 |
|-----|---|-----|-----|---|-----|

(Note) Marking : CS
 h_{FE} rank : 4,5

Package Dimensions 2018A
(unit : mm)



2SA1682



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