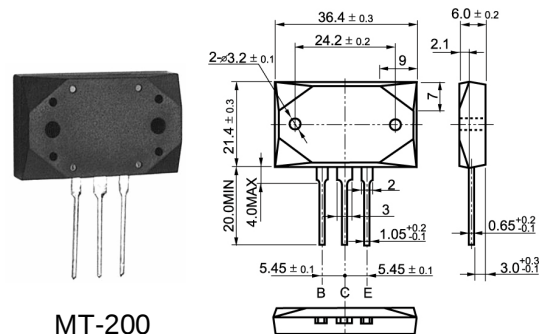


**2SC2922****Silicon Epitaxial Planar Transistor****GENERAL DESCRIPTION**

High frequency, high power transistors in a plastic envelope, primarily for use in audio and general purpose

**MT-200****QUICK REFERENCE DATA**

| SYMBOL      | PARAMETER                             | CONDITIONS                                      | TYP  | MAX | UNIT    |
|-------------|---------------------------------------|-------------------------------------------------|------|-----|---------|
| $V_{CBO}$   | Collector-emitter voltage peak value  | $V_{BE} = 0V$                                   | -    | 180 | V       |
| $V_{CEO}$   | Collector-emitter voltage (open base) |                                                 | -    | 180 | V       |
| $I_C$       | Collector current (DC)                |                                                 | -    | 17  | A       |
| $I_{CM}$    | Collector current peak value          |                                                 | -    |     | A       |
| $P_{tot}$   | Total power dissipation               | $T_{mb} \leq 25^\circ C$                        | -    | 200 | W       |
| $V_{CEsat}$ | Collector-emitter saturation voltage  | $I_C = 8.0A; I_B = 0.8A$                        | -    | 3   | V       |
| $V_F$       | Diode forward voltage                 | $I_F = 8.0A$                                    | 1.5  | 2.0 | V       |
| $t_f$       | Fall time                             | $I_C = 8A, I_{B1} = -I_{B2} = 1A, V_{CC} = 40V$ | 0.45 | 1.0 | $\mu s$ |

**LIMITING VALUES**

| SYMBOL     | PARAMETER                             | CONDITIONS               | MIN | MAX | UNIT       |
|------------|---------------------------------------|--------------------------|-----|-----|------------|
| $V_{CESM}$ | Collector-emitter voltage peak value  | $V_{BE} = 0V$            | -   | 180 | V          |
| $V_{CEO}$  | Collector-emitter voltage (open base) |                          | -   | 180 | V          |
| $V_{EBO}$  | Emitter-base voltage (open collector) |                          |     | 5   | V          |
| $I_C$      | Collector current (DC)                |                          | -   | 17  | A          |
| $I_B$      | Base current (DC)                     |                          | -   | 5   | A          |
| $P_{tot}$  | Total power dissipation               | $T_{mb} \leq 25^\circ C$ | -   | 200 | W          |
| $T_{sta}$  | Storage temperature                   |                          | -55 | 150 | $^\circ C$ |
| $T_j$      | Junction temperature                  |                          | -   | 150 | $^\circ C$ |

**ELECTRICAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                             | CONDITIONS                                      | TYP  | MAX | UNIT    |
|---------------|---------------------------------------|-------------------------------------------------|------|-----|---------|
| $I_{CBO}$     | Collector-base cut-off current        | $V_{CB} = 180V$                                 | -    | 0.2 | mA      |
| $I_{EBO}$     | Emitter-base cut-off current          | $V_{EB} = 5V$                                   | -    | 0.2 | mA      |
| $V_{(BR)CEO}$ | Collector-emitter breakdown voltage   | $I_C = 1mA$                                     | 180  |     |         |
| $V_{CEsat}$   | Collector-emitter saturation voltages | $I_C = 8A; I_B = 0.8A$                          | -    | 2   | V       |
| $h_{FE}$      | DC current gain                       | $I_C = 2A; V_{CE} = 5V$                         | 50   | 200 |         |
| $f_T$         | Transition frequency at $f = 5MHz$    | $I_C = 2A; V_{CE} = 12V$                        | 10   | -   | MHz     |
| $C_c$         | Collector capacitance at $f = 1MHz$   | $V_{CB} = 10V, f = 1MHz$                        | 250  | -   | pF      |
| $t_{on}$      | On times                              | $I_C = 8A, I_{B1} = -I_{B2} = 1A, V_{CC} = 40V$ | 0.2  |     | $\mu s$ |
| $t_s$         | Turn-off storage time                 | $I_C = 8A, I_{B1} = -I_{B2} = 1A, V_{CC} = 40V$ | 1.5  |     | $\mu s$ |
| $t_f$         | Fall time                             | $I_C = 8A, I_{B1} = -I_{B2} = 1A, V_{CC} = 40V$ | 0.45 | 1.0 | $\mu s$ |