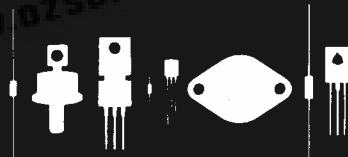


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145 Adams Avenue
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SE9300
SE9301
SE9302

Silicon NPN Transistor
Darlington Power
JEDEC TO-220 Case

DESCRIPTION

The CENTRAL SEMICONDUCTOR SE9300, 01, 02 are Silicon NPN Epitaxial Base, Monolithic Diffused Resistor Type Darlington Construction Power Transistors designed for audio amplifiers and medium power linear and switching applications.

MAXIMUM RATINGS (T_C=25°C)

| | | 9300 | 9301 | 9302 |
|--------------------------------|------------------|---------------|------|------|
| Collector to Emitter Voltage | V _{CEO} | 60V | 80V | 100V |
| Collector to Base Voltage | V _{CB0} | 60V | 80V | 100V |
| Emitter to Base Voltage | V _{EBO} | 5V | 5V | 5V |
| Collector Current | I _C | 10A | 10A | 10A |
| Power Dissipation | P _D | 70W | 70W | 70W |
| Operating Junction Temperature | T _J | -65 to +150°C | | |
| Storage Temperature | T _{stg} | -65 to +150°C | | |

ELECTRICAL CHARACTERISTICS (T_C=25°C)

| Symbol | Test Conditions | Min. | Max. | Unit |
|---------------------|--|----------------------|-----------------|------|
| I _{CBO} | V _{CE} =Rated V _{CEO} | | 200 | uA |
| I _{EBO} | V _{EB} =5.0V | | 4.0 | mA |
| I _{CEO} | V _{CE} =0.5xRated V _{CEO} | | 500 | uA |
| V _{CE0} | I _C =100mA | 9300 9301 9302 | 60 80 100 | V |
| V _{CE(S)} | I _C =4.0A, I _B =16mA | | 2.0 | V |
| V _{CE(S)} | I _C =7.5A, I _B =150mA | | 2.5 | V |
| V _{BE(ON)} | V _{CE} =3.0V, I _C =4.0A | | 2.5 | V |
| V _{BE(ON)} | V _{CE} =3.0V, I _C =7.5A | | 3.0 | V |
| h _{FE} | V _{CE} =3.0V, I _C =1.0A | 750 | | - |
| h _{FE} | V _{CE} =3.0V, I _C =4.0A | 1,000 | | - |
| h _{FE} | V _{CE} =3.0V, I _C =7.5A | 100 | | - |
| h _{fe} | V _{CE} =3.0V, I _C =4.0A, f=1.0 MHz | 1.0 | | - |



To-220

