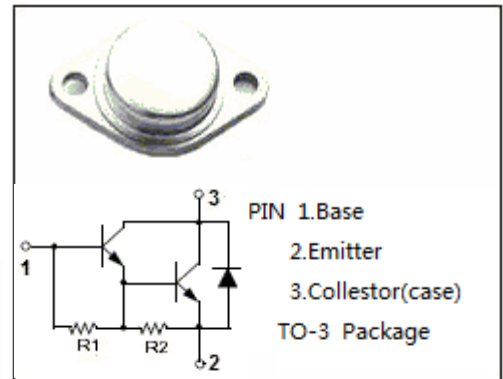


isc Silicon NPN Darlington Power Transistor

2SD962

DESCRIPTION

- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 200V(\text{Min})$
- High DC Current Gain
- High Reliability
- Good Linearity of h_{FE}
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

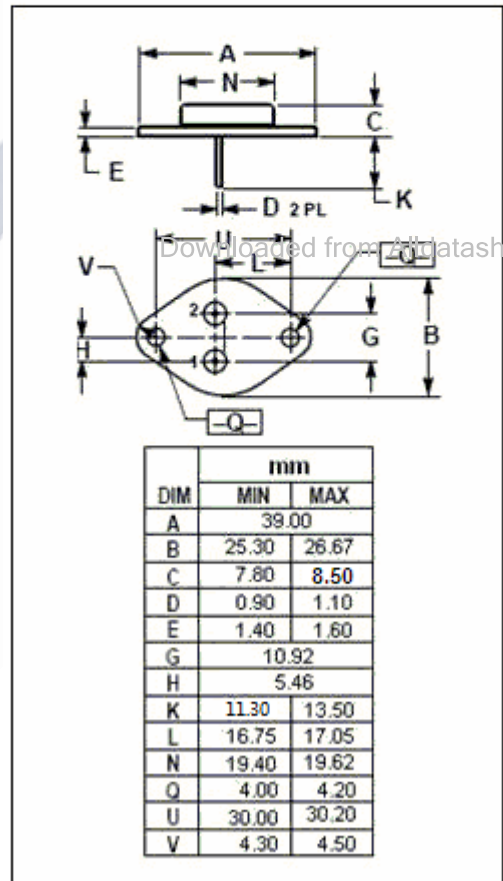


APPLICATIONS

- Designed for series regulators ,color TV, power supplies and similar devices applications.

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 200 | V |
| V_{CEO} | Collector-Emitter Voltage | 200 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current-Continuous | 5 | A |
| I_{CP} | Collector Current-Peak | 8 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 80 | W |
| T_j | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



isc Silicon NPN Darlington Power Transistor**2SD962****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------|--------------------------------------|-------------------------------------|------|------|-------|------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C=10\text{mA}, I_B=0$ | 200 | | | V |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage | $I_C=1\text{mA}; I_B=0$ | 200 | | | V |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage | $I_E=3\text{mA}; I_C=0$ | 6 | | | V |
| $V_{CE(sat)-1}$ | Collector-Emitter Saturation Voltage | $I_C=3\text{A}, I_B=12\text{mA}$ | | | 2.0 | V |
| $V_{CE(sat)-2}$ | Collector-Emitter Saturation voltage | $I_C=5\text{A}, I_B=20\text{mA}$ | | | 4.0 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C=3.0\text{A}; V_{CE}=3\text{V}$ | | | 2.5 | V |
| I_{CBO} | Collector Cutoff current | $V_{CB}=200\text{V}, I_E=0$ | | | 0.1 | mA |
| I_{CEO} | Collector Cutoff Current | $V_{CE}=200\text{V}, I_B=0$ | | | 0.5 | mA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=5\text{V}; I_C=0$ | | | 3 | mA |
| h_{FE} | DC Current Gain | $I_C=1\text{A}; V_{CE}=4\text{V}$ | 1000 | | 20000 | |