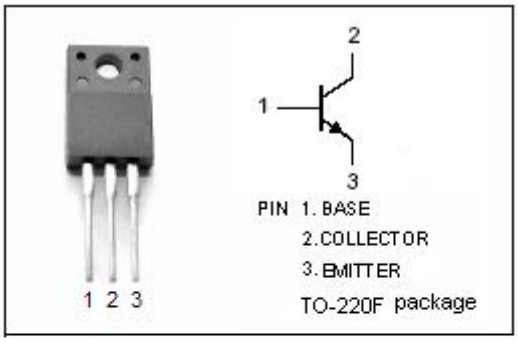
# isc Silicon NPN Power Transistors — 2SC4982

## DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 80V(Min)
- Collector Current-$I_C$= 10A(Max.)
- Low Collector Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

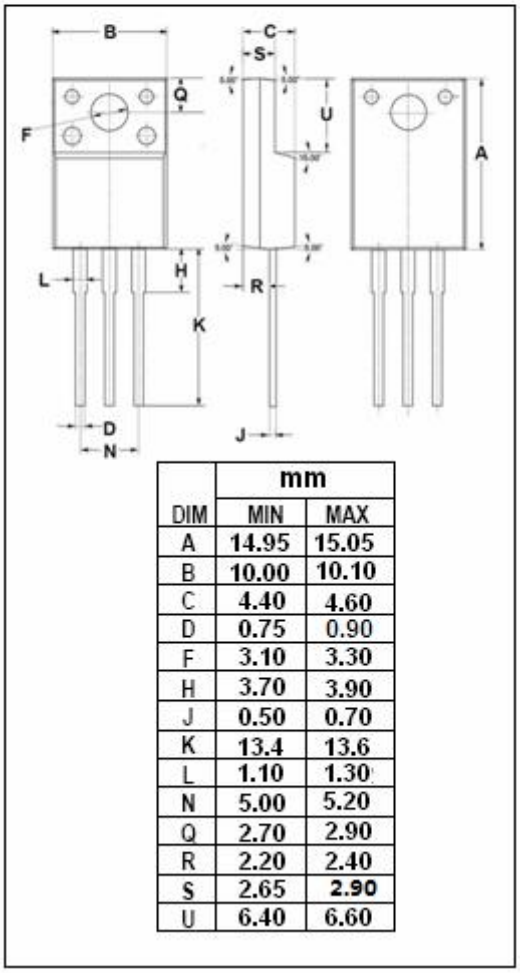
## APPLICATIONS

- Designed for use in drivers such as DC/DC converters and actuators.




## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 100 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 80 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 7 | V |
| $I_C$ | Collector Current-Continuous | 10 | A |
| $I_{CM}$ | Collector Current-Peak | 20 | A |
| $I_B$ | Base Current-Continuous | 1.5 | A |
| $I_{BM}$ | Base Current-Peak | 2 | A |
| $P_T$ | Total Power Dissipation @ $T_C$=25℃ | 25 | W |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |




| DIM | mm MIN | mm MAX |
|---|---|---|
| A | 14.95 | 15.05 |
| B | 10.00 | 10.10 |
| C | 4.40 | 4.60 |
| D | 0.75 | 0.90 |
| F | 3.10 | 3.30 |
| H | 3.70 | 3.90 |
| J | 0.50 | 0.70 |
| K | 13.4 | 13.6 |
| L | 1.10 | 1.30 |
| N | 5.00 | 5.20 |
| Q | 2.70 | 2.90 |
| R | 2.20 | 2.40 |
| S | 2.65 | 2.90 |
| U | 6.40 | 6.60 |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance,Junction to Case | 5 | ℃/W |

# isc Silicon NPN Power Transistors 2SC4982

## ELECTRICAL CHARACTERISTICS

**$T_C$=25℃ unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C$= 0.1A; $I_B$= 0 | 80 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C$= 5A; $I_B$= 0.25A | | | 0.3 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C$= 5A; $I_B$= 0.25A | | | 1.2 | V |
| $I_{CBO}$ | Collector Cutoff Current | At rated Voltage | | | 100 | μA |
| $I_{CEO}$ | Collector Cutoff Current | At rated Voltage | | | 100 | μA |
| $I_{EBO}$ | Emitter Cutoff Current | At rated Voltage | | | 100 | μA |
| $h_{FE}$ | DC Current Gain | $I_C$= 5A; $V_{CE}$= 2V | 70 | | | |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= 1A; $V_{CE}$= 10V | | 50 | | MHz |
| Switching times | | | | | | |
| $t_{on}$ | Turn-on Time | $I_C$= 5A, $I_{B1}$= 0.5A; $I_{B2}$= -0.5A; $R_L$= 5Ω ; $V_{BB2}$= 4V | | | 0.3 | μs |
| $t_{stg}$ | Storage Time | | | | 1.5 | μs |
| $t_f$ | Fall Time | | | | 0.2 | μs |