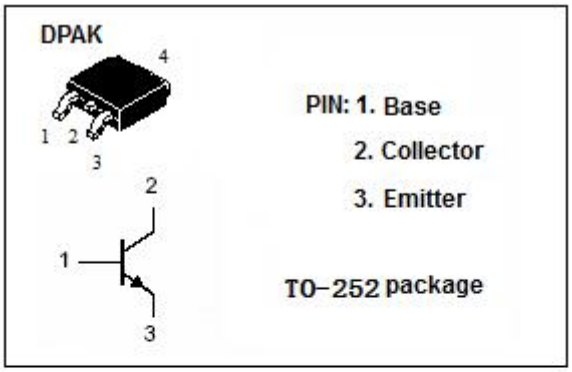
# isc Silicon NPN Power Transistor — FJD5555

## DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 400V(Min.)
- Fast Speed Switching
- Wide safe operating Area
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device Performance and reliable operation




## APPLICATIONS

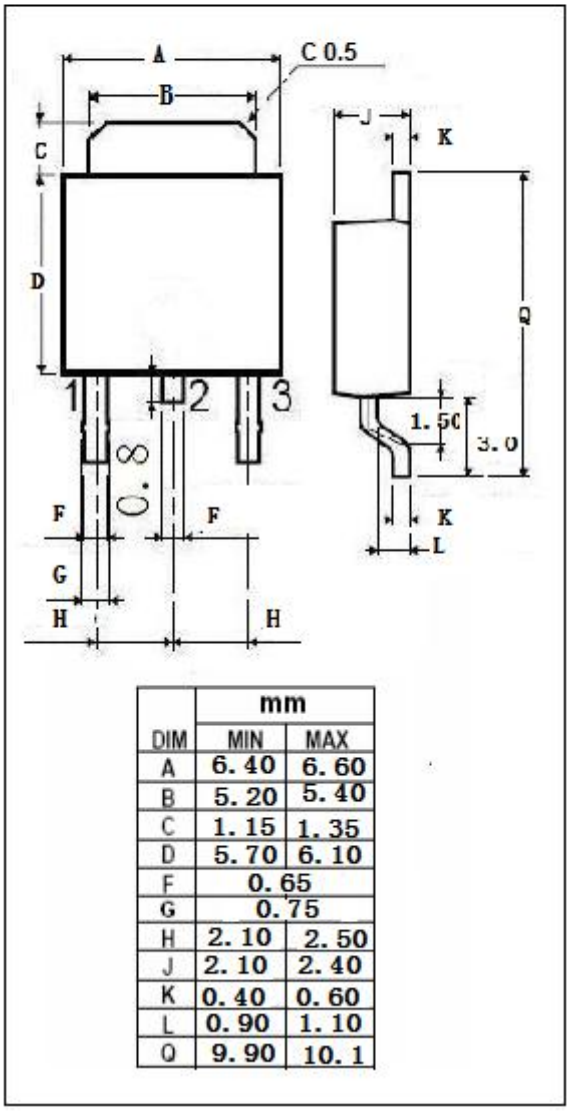
- Designed for electronic ballast application

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 1050 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 400 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 14 | V |
| $I_C$ | Collector Current-Continuous | 5 | A |
| $I_{CM}$ | Collector Current-Peak | 10 | A |
| $I_B$ | Base Current | 2 | A |
| $I_{BM}$ | Base Current-Peak | 4 | A |
| $P_C$ | Collector Power Dissipation @$T_C$=25℃ | 1.34 | W |
| $T_j$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}A}$ | Thermal Resistance,Junction to Ambient | 95 | ℃/W |




| DIM | mm MIN | MAX |
|---|---|---|
| A | 6.40 | 6.60 |
| B | 5.20 | 5.40 |
| C | 1.15 | 1.35 |
| D | 5.70 | 6.10 |
| F | 0.65 | |
| G | 0.75 | |
| H | 2.10 | 2.50 |
| J | 2.10 | 2.40 |
| K | 0.40 | 0.60 |
| L | 0.90 | 1.10 |
| Q | 9.90 | 10.1 |

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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---|---|---|---|---|---|---|
| BVCEO | Collector-Base Breakdown Voltage | $I_C$=500uA, IE=0 | 1050 | | | V |
| BVCEO | Collector-Emitter Breakdown Voltage | $I_C$=5mA, IB=0 | 400 | | | V |
| BVEBO | Emitter-Base Breakdown Voltage | IE=500μA, IC=0 | 14 | | | V |
| $V_{CE(sat)-1}$ | Collector-Emitter Saturation Voltage | $I_C$= 1A; $I_B$= 0.2A | | | 0.5 | V |
| $V_{CE(sat)-2}$ | Collector-Emitter Saturation Voltage | $I_C$= 3.5A; $I_B$= 1.0A | | | 1.5 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C$= 3.5A; $I_B$= 1.0A | | | 1.2 | V |
| $h_{FE-1}$ | DC Current Gain | $I_C$= 10mA; $V_{CE}$= 5V | 10 | | | |
| $h_{FE-2}$ | DC Current Gain | IC= 0.8A; VCE= 3V | 20 | | 40 | |
| Cob | Output Capacitance | VCB=10V, f=1MHz | | 45 | | pF |