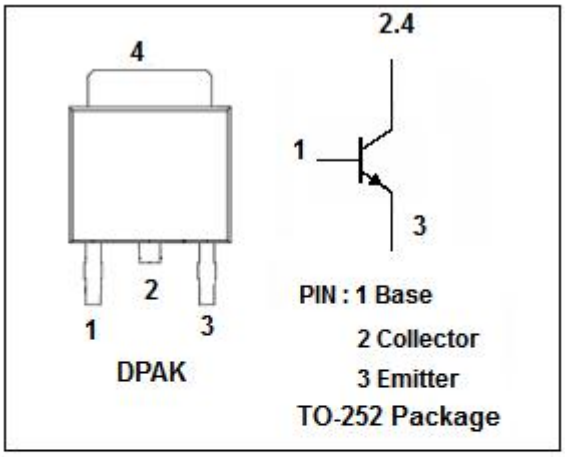
# isc Silicon NPN Power Transistor — 2SC4332-Z

## DESCRIPTION

- Low collector saturation voltage
- Fast switching speed
- High DC current gain and excellent linearity
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation




## APPLICATIONS

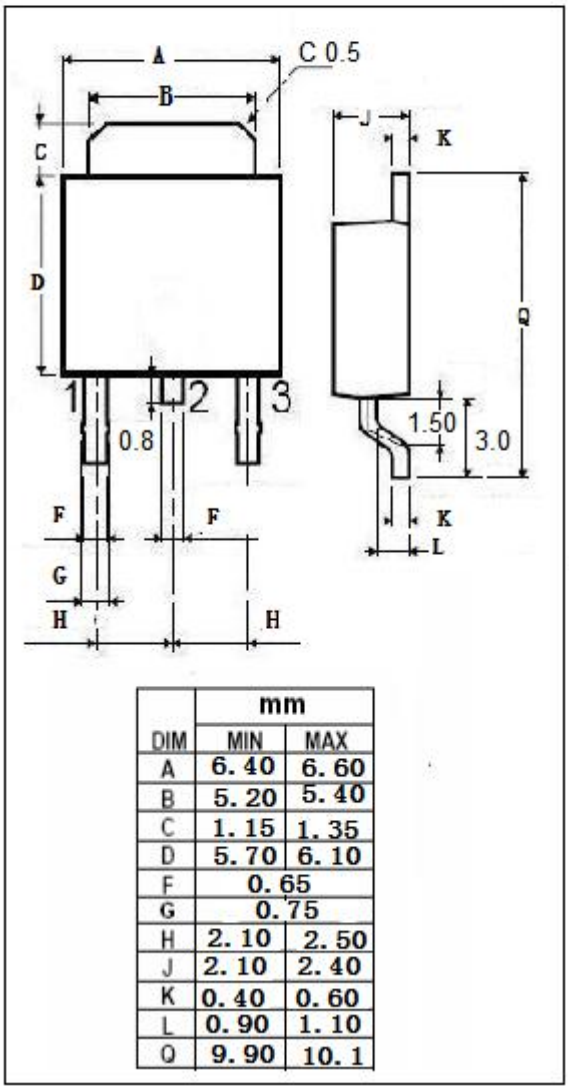
- This transistor is ideal for use in Switching regulators, DC/DC converters,motor drivers,Solenoid drivers and other low-voltage power supply devices,as well as for high-current switching.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | 100 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | 60 | V |
| $V_{EBO}$ | Emitter-Base Voltage | 7 | V |
| $I_C$ | Collector Current-Continuous | 5 | A |
| $I_{CM}$ | Collector Current-Peak NOTE1 | 10 | A |
| $P_C$ | Collector Power Dissipation @ $T_C$=25℃ | 15 | W |
| | Collector Power Dissipation @$T_a$=25℃ NOTE2 | 1.0 | |
| $T_J$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -55~150 | ℃ |

NOTE1:PW≤300ms,Duty cycle ≤10%

NOTE2:Printing boarding mounted




| 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 |
|---|---|---|---|---|---|---|
| $V_{CE(sat)-1}$NOTE | Collector-Emitter Saturation Voltage | $I_C$= 3A; $I_B$= 150mA | | | 0.3 | V |
| $V_{CE(sat)-2}$NOTE | Collector-Emitter Saturation Voltage | $I_C$= 4A; $I_B$= 200mA | | | 0.5 | V |
| $V_{BE(sat)-1}$NOTE | Base-Emitter Saturation Voltage | $I_C$= 3A; $I_B$= 150mA | | | 1.2 | V |
| $V_{BE(sat)-2}$NOTE | Base-Emitter Saturation Voltage | $I_C$= 4A; $I_B$= 200mA | | | 1.5 | V |
| $I_{CBO}$ | Collector Cutoff Current | $V_{CB}$= 60V; $I_E$= 0 | | | 10 | μA |
| $I_{EBO}$ | Emitter Cutoff Current | $V_{EB}$= 5V; $I_C$= 0 | | | 10 | μA |
| $h_{FE-1}$NOTE | DC Current Gain | $I_C$= 0.5A; $V_{CE}$= 2V | 100 | | | |
| $h_{FE-2}$NOTE | DC Current Gain | $I_C$= 1A; $V_{CE}$= 2V | 100 | | 400 | |
| $h_{FE-3}$NOTE | DC Current Gain | $I_C$= 3A; $V_{CE}$= 2V | 60 | | | |
| $C_{OB}$ | Output Capacitance | $I_E$= 0; $V_{CB}$= 10V; f= 1.0MHz | | 130 | | pF |
| $f_T$ | Current-Gain—Bandwidth Product | $I_C$= 500mA; $V_{CE}$= 10V | | 150 | | MHz |

NOTE:Pulse test PW≤350us,duty cycle ≤2%/pulse

◆ **$h_{FE-2}$ Classifications**

| M | L | K |
|---|---|---|
| 100-200 | 150-300 | 200-400 |



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