

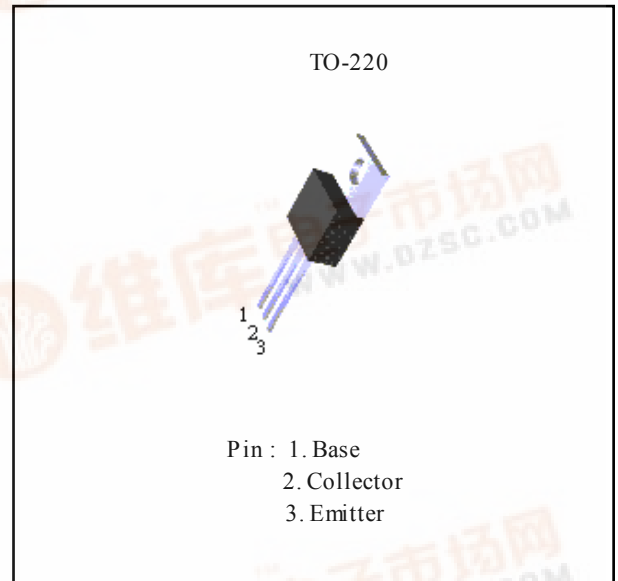
NPN Epitaxial Silicon Transistor

HIGH VOLTAGE SWITCH MODE APPLICATION

- High Speed Switching
- Suitable for Switching Regulator and Motor Control

ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|------------------|----------|------|
| Collector Base Voltage | V _{CBO} | 700 | V |
| Collector Emitter Voltage | V _{CEO} | 400 | V |
| Emitter Base Voltage | V _{EBO} | 9 | V |
| Collector Current (DC) | I _c | 8 | A |
| Collector Current (Pulse) | I _c | 16 | A |
| Base Current | I _B | 4 | A |
| Collector Dissipation | P _c | 80 | W |
| Junction Temperature | T _j | 150 | °C |
| Storage Temperature | T _{stg} | -65 ~150 | °C |



ORDERING INFORMATION

| Device | Operating Temperature | Package |
|-----------|-----------------------|---------|
| PJ13007CZ | -20°C ~+85°C | TO-220 |

ELECTRICAL CHARACTERISTICS(Ta= 25°C)

| Characteristic | Symbol | Test Condition | Min | Typ | Max | Unit |
|---------------------------------------|-----------------------|--|-----|-----|-----|------|
| *Collector Emitter Sustaining Voltage | V _{CEO(SUS)} | I _c = 10mA, I _B = 0 | 400 | | | V |
| Emitter Cutoff Current | I _{EBO} | V _{EB} =9V, I _c =0 | | | 1 | mA |
| *DC Current Gain | h _{FE} | V _{CE} =5V, I _c =2A | 8 | | 60 | |
| | | V _{CE} =5V, I _c =5A | 5 | | 30 | |
| *Collector Emitter Saturation Voltage | V _{CE (sat)} | I _c =2A, I _B =0.4A | | | 1 | V |
| | | I _c =5A, I _B =1A | | | 2 | V |
| | | I _c =8A, I _B =2A | | | 3 | V |
| *Base Emitter Saturation Voltage | V _{BE (sat)} | I _c =2A, I _B =0.4A | | | 1.2 | V |
| | | I _c =5A, I _B =1A | | | 1.6 | V |
| Output Capacitance | C _{OB} | V _{CB} =10V, f=0.1MHz | | 110 | | pF |
| Current Gain Bandwidth Product | f _T | V _{CE} =10V, I _c =0.5A | 4 | | | MHz |
| Turn On Time | t _{on} | V _{CC} =125V, I _c =5A | | | 1.6 | μ S |
| Storage Time | t _s | I _{B1} =I _{B2} =1A | | | 3 | μ S |
| Fall Time | t _f | | | | 0.7 | μ S |

- Pulse Test: PW ≤300 μ S, Duty Cycle ≤2 %

TO-220 Unit:mm

