Silicon NPN Triple Diffused Character Display Horizontal Deflection Output

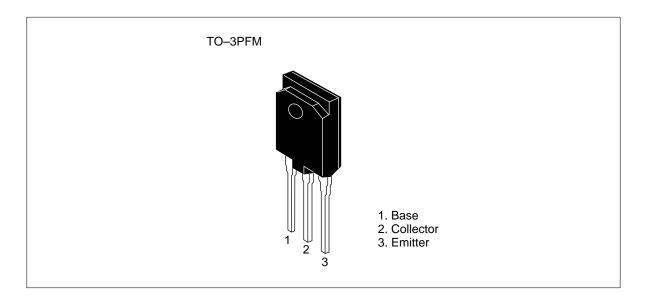
HITACHI

ADE-208-671 (Z) 1st. Edition Oct. 1, 1998

Features

- High breakdown voltage
 - $V_{\text{CBO}} = 1500 \ V$
- High speed switching tf = 0.15 μsec(typ.) at fH=64kHz
- Isolated package TO-3PFM

Outline



Absolute Maximum Ratings ($Ta = 25^{\circ}C$)

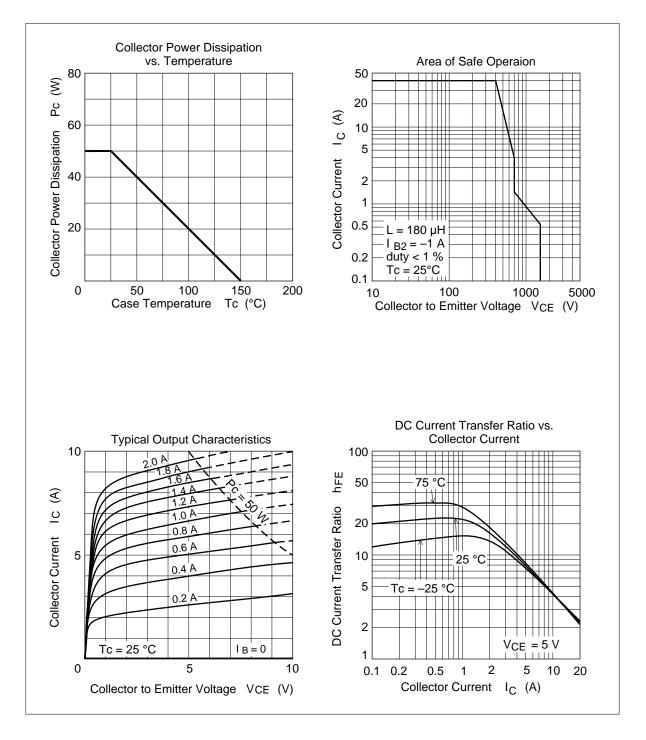
| Item | Symbol | Ratings | Unit |
|------------------------------|----------------------|-------------|------|
| Collector to base voltage | V_{CBO} | 1500 | V |
| Collector to emitter voltage | V _{CEO} | 700 | V |
| Emitter to base voltage | V _{EBO} | 6 | V |
| Collector current | I _c | 20 | A |
| Collector peak current | i _{c(peak)} | 40 | A |
| Collector power dissipation | P _C Note1 | 50 | W |
| Junction temperature | Tj | 150 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

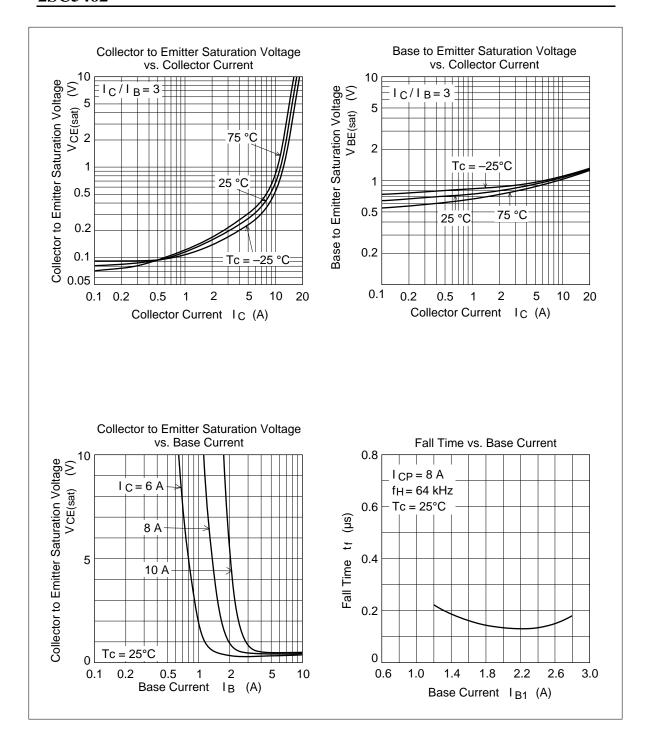
Note: 1. Value at Tc = 25°C

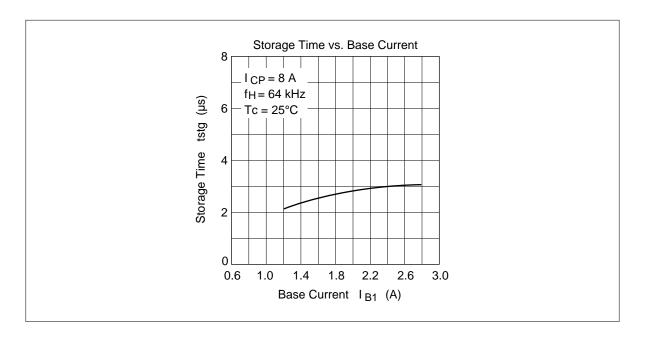
Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Тур | Max | Unit | Test Conditions |
|---|----------------------|-----|------|-----|------|---|
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | 700 | _ | _ | V | I _C = 10mA, R _{BE} = • |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | 6 | | | V | $I_{E} = 10 \text{mA}, I_{C} = 0$ |
| Collector cutoff current | I _{CES} | | | 500 | μΑ | V _{CE} = 1500V, R _{BE} = 0 |
| DC current transfer ratio | h _{FE1} | 10 | | 40 | | $V_{CE} = 5 \text{ V}, I_{C} = 1 \text{A}$ |
| DC current transfer ratio | h _{FE2} | 3.5 | | 6.5 | | V _{CE} = 5 V, I _C = 10A |
| Collector to emitter saturation voltage | V _{CE(sat)} | | | 5 | V | I _C = 12A, I _B = 4A |
| Base to emitter saturation voltage | $V_{BE(sat)}$ | _ | | 1.5 | V | I _C = 12A, I _B = 4A |
| Fall time | t _f | _ | 0.2 | 0.4 | μs | $I_{CP} = 8A, I_{B1} = 3A$ $f_{H} = 31.5 \text{kHz}$ |
| Fall time | t _f | | 0.15 | | μs | $I_{CP} = 8A, I_{B1} = 2A f_{H} = 64kHz$ |

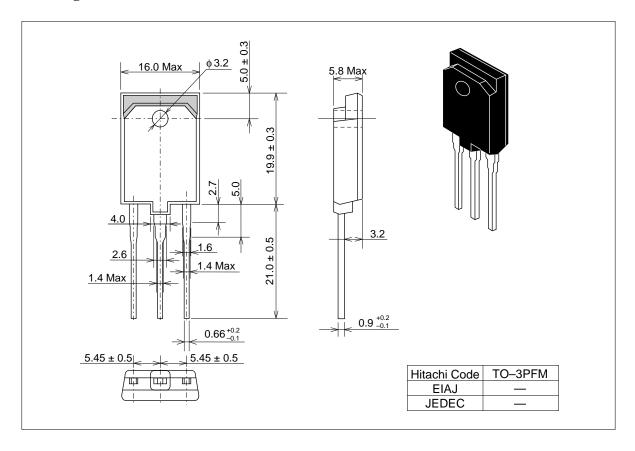
Main Characteristics







Package Dimensions (Unit: mm)



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