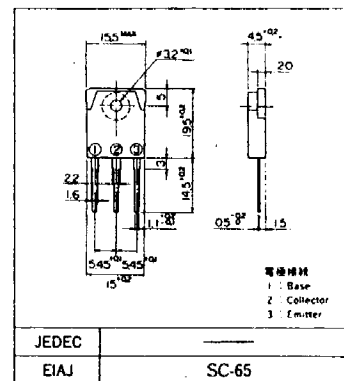


# 2SC3725

## TRIPLE DIFFUSED PLANER TYPE HIGH VOLTAGE, HIGH SPEED SWITCHING

### ■外形寸法：Outline Drawings



### ■特長：Features

- 高耐圧, 高速スイッチング High voltage, high speed switching
- 高信頼性 High reliability

### ■用途：Applications

- スイッチングレギュレータ Switching regulators
- 超音波発生機器 Ultrasonic generators
- 高周波インバータ High frequency inverters
- 一般電力増幅 General purpose power amplifiers

### ■定格と特性：Maximum Ratings and Characteristics

#### ●絶対最大定格：Absolute Maximum Ratings (Tc=25°C)

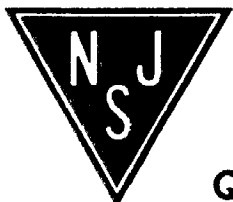
| Items        | Symbols               | Ratings  | Units |
|--------------|-----------------------|----------|-------|
| コレクタ・ベース間電圧  | V <sub>CB0</sub>      | 450      | V     |
| コレクタ・エミッタ間電圧 | V <sub>CE0</sub>      | 400      | V     |
| コレクタ・エミッタ間電圧 | V <sub>CE0(SUS)</sub> | 400      | V     |
| エミッタ・ベース間電圧  | V <sub>EB0</sub>      | 10       | V     |
| コレクタ電流       | I <sub>C</sub>        | 15       | A     |
| ベース電流        | I <sub>B</sub>        | 5        | A     |
| コレクタ損失       | P <sub>C</sub>        | 80       | W     |
| 接合部温度        | T <sub>j</sub>        | +150     | °C    |
| 保存温度         | T <sub>stg</sub>      | -55~+150 | °C    |

#### ●電気的特性：Electrical Characteristics (Tc=25°C)

| Items          | Symbols               | Test Condition  | Min | Typ | Max | Units |
|----------------|-----------------------|---|-----|-----|-----|-------|
| コレクタ・ベース間電圧    | V <sub>CB0</sub>      | I <sub>CB0</sub> =1mA   | 450 |     |     | V     |
| コレクタ・エミッタ間電圧   | V <sub>CE0</sub>      | I <sub>CE0</sub> =10mA  | 400 |     |     | V     |
| コレクタ・エミッタ間電圧   | V <sub>CE0(SUS)</sub> | I <sub>CE0</sub> =0.2A  | 400 |     |     | V     |
| エミッタ・ベース間電圧    | V <sub>EB0</sub>      | I <sub>EB0</sub> =1mA   | 10  |     |     | V     |
| コレクタしや断電流      | I <sub>CB0</sub>      | V <sub>CB0</sub> =450V  |     |     | 0.1 | mA    |
| エミッタしや断電流      | I <sub>EB0</sub>      | V <sub>EB0</sub> =10V   |     |     | 0.1 | mA    |
| 直流電流増幅率        | h <sub>FE</sub>       | I <sub>C</sub> =6A, V <sub>CE</sub> =5V   | 10  |     |     | —     |
| コレクタ・エミッタ飽和電圧  | V <sub>CE(sat)</sub>  | I <sub>C</sub> =6A, I <sub>B</sub> =1.2A  |     |     | 0.8 | V     |
| ベース・エミッタ飽和電圧   | V <sub>BE(sat)</sub>  |   |     |     | 1.2 | V     |
| *)<br>スイッチング時間 | t <sub>on</sub>       | I <sub>C</sub> =6A, I <sub>B</sub> =2A<br>I <sub>B2</sub> =-4A, R <sub>L</sub> =15Ω<br>P <sub>w</sub> =20μs, Duty≤20% |     |     | 1   | μs    |
|                | t <sub>sig</sub>      |   |     |     | 2.5 | μs    |
|                | t <sub>f</sub>        |   |     |     | 0.5 | μs    |

#### ●熱的特性：Thermal Characteristics

| Item | Symbol               | Test Condition   | Min | Typ | Max  | Unit |
|------|----------------------|------------------|-----|-----|------|------|
| 熱抵抗  | R <sub>th(j-c)</sub> | Junction to Case |     |     | 1.56 | °C/W |



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