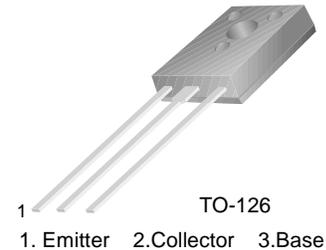




## MJE340

### High Voltage General Purpose Applications

- High Collector-Emitter Breakdown Voltage
- Suitable for Transformer
- Complement to MJE350



### NPN Epitaxial Silicon Transistor

#### Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol    | Parameter  | Value      | Units            |
|-----------|--|------------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                           | 300        | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                        | 300        | V                |
| $V_{EBO}$ | Emitter-Base Voltage                             | 5          | V                |
| $I_C$     | Collector Current                                | 500        | mA               |
| $P_C$     | Collector Dissipation ( $T_C=25^\circ\text{C}$ ) | 20         | W                |
| $T_J$     | Junction Temperature                             | 150        | $^\circ\text{C}$ |
| $T_{STG}$ | Storage Temperature                              | - 65 ~ 150 | $^\circ\text{C}$ |

#### Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol     | Parameter                           | Test Condition                           | Min. | Max. | Units         |
|------------|-------------------------------------|--|------|------|---------------|
| $BV_{CEO}$ | Collector-Emitter Breakdown Voltage | $I_C = 1\text{mA}, I_B = 0$              | 300  |      | V             |
| $I_{CBO}$  | Collector Cut-off Current           | $V_{CB} = 300\text{V}, I_E = 0$          |      | 100  | $\mu\text{A}$ |
| $I_{EBO}$  | Emitter Cut-off Current             | $V_{BE} = 3\text{V}, I_C = 0$            |      | 100  | $\mu\text{A}$ |
| $h_{FE}$   | DC Current Gain                     | $V_{CE} = 10\text{V}, I_C = 50\text{mA}$ | 30   | 240  |               |

# Typical Characteristics

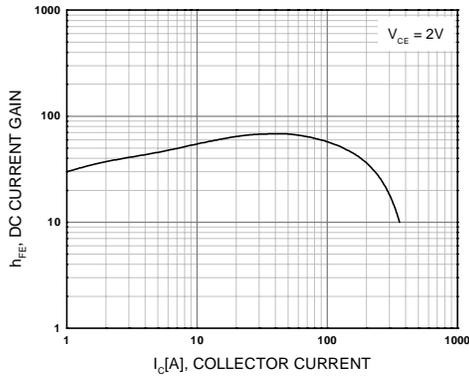


Figure 1. DC current Gain

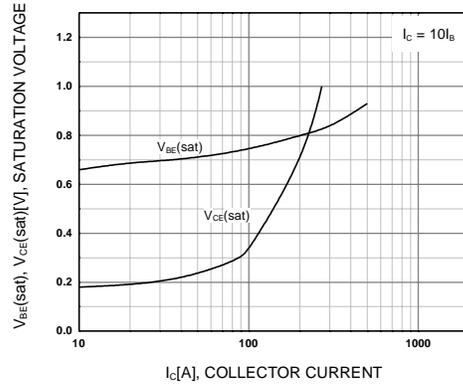


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

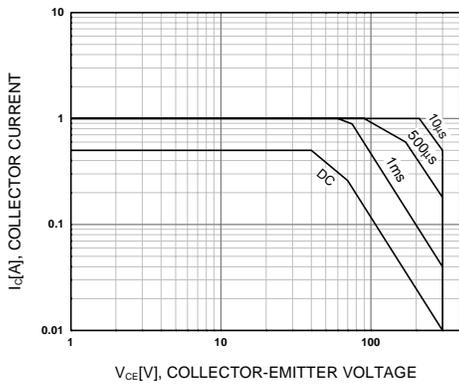


Figure 3. Safe Operating Area

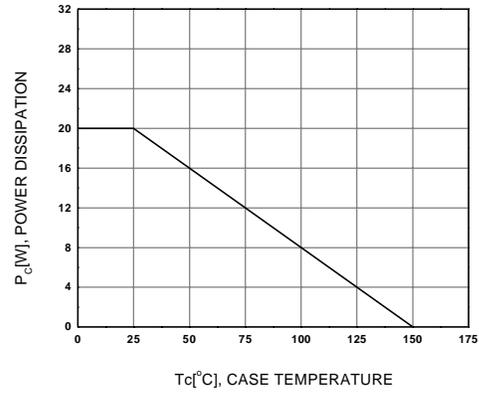
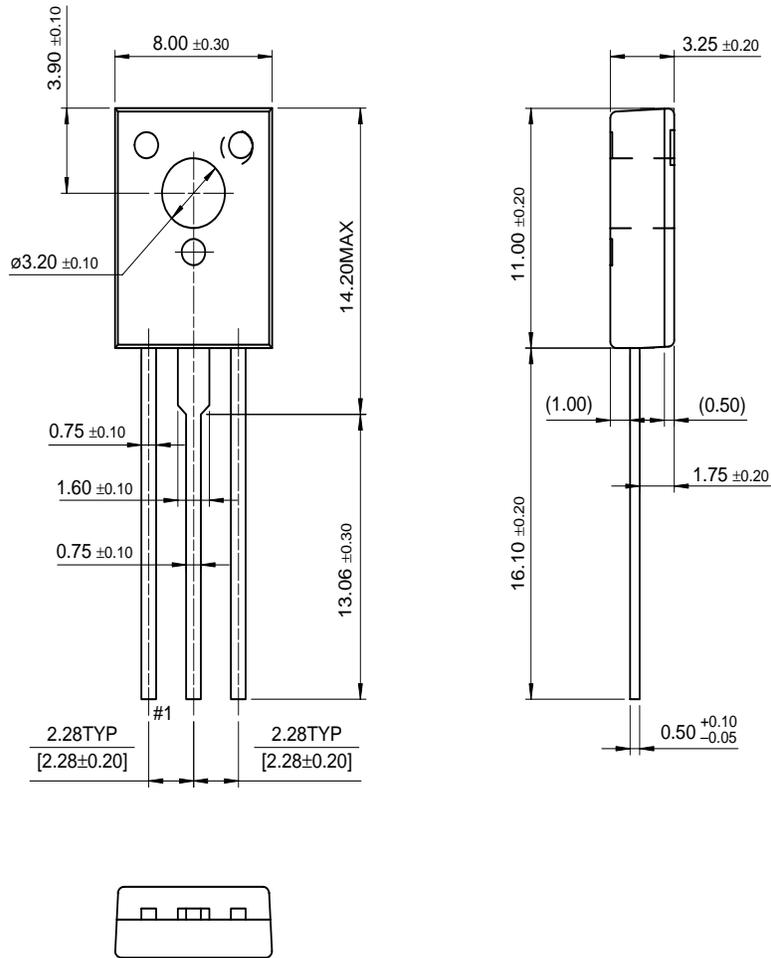


Figure 4. Power Derating

# Package Demensions

## TO-126



Dimensions in Millimeters

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| CoolFET™             | GTO™                | QS™                 | VCX™       |
| CROSSVOLT™           | HiSeC™              | QT Optoelectronics™ | UHC™       |
| DOME™                | ISOPLANAR™          | Quiet Series™       |            |
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| EnSigna™             | OPTOLOGIC™          | SMART START™        |            |
| FACT™                | OPTOPLANAR™         | SuperSOT™-3         |            |
| FACT Quiet Series™   | PACMAN™             | SuperSOT™-6         |            |
| FAST®                | POP™                | SuperSOT™-8         |            |

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