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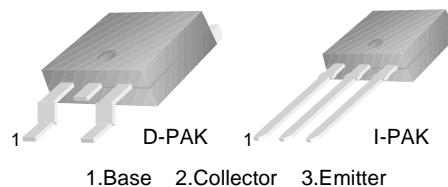
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## MJD340

### High Voltage Power Transistors D-PAK for Surface Mount Applications

- Lead Formed for Surface Mount Applications (No Suffix)
- Straight Lead (I-PAK, "- I" Suffix)



### 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                             | 3          | V                |
| $I_C$     | Collector Current (DC)                           | 0.5        | A                |
| $I_{CP}$  | Collector Current (Pulse)                        | 0.75       | A                |
| $P_C$     | Collector Dissipation ( $T_C=25^\circ\text{C}$ ) | 15         | W                |
|           | Collector Dissipation ( $T_a=25^\circ\text{C}$ ) | 1.56       | 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 |
|----------------|--|--|------|------|-------|
| $V_{CEO(sus)}$ | * Collector Emitter Sustaining Voltage | $I_C = 1\text{mA}, I_B = 0$              | 300  |      | V     |
| $I_{CEO}$      | Collector Cut-off Current              | $V_{CB} = 300\text{V}, I_E = 0$          |      | 0.1  | mA    |
| $I_{EBO}$      | Emitter Cut-off Current                | $V_{EB} = 3\text{V}, I_C = 0$            |      | 0.1  | mA    |
| $h_{FE}$       | * DC Current Gain                      | $V_{CE} = 10\text{V}, I_C = 50\text{mA}$ | 30   | 240  |       |

\* Pulse Test:  $PW \leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$

# Typical Characteristics

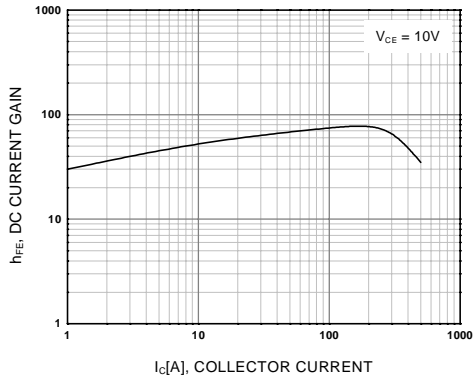


Figure 1. DC current Gain

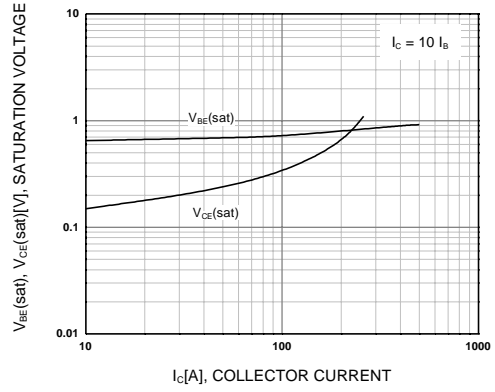


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

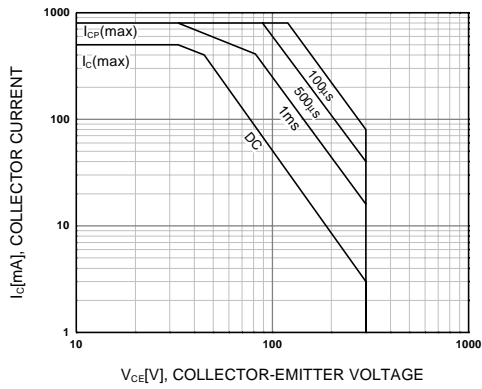


Figure 3. Safe Operating Area

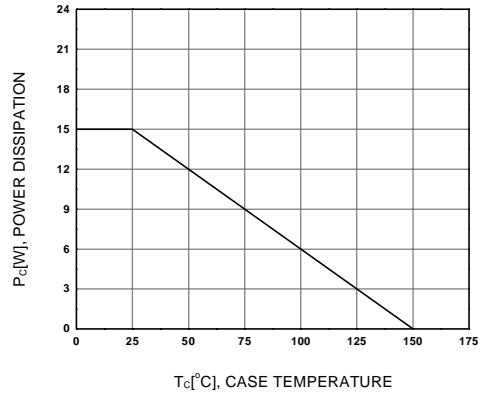
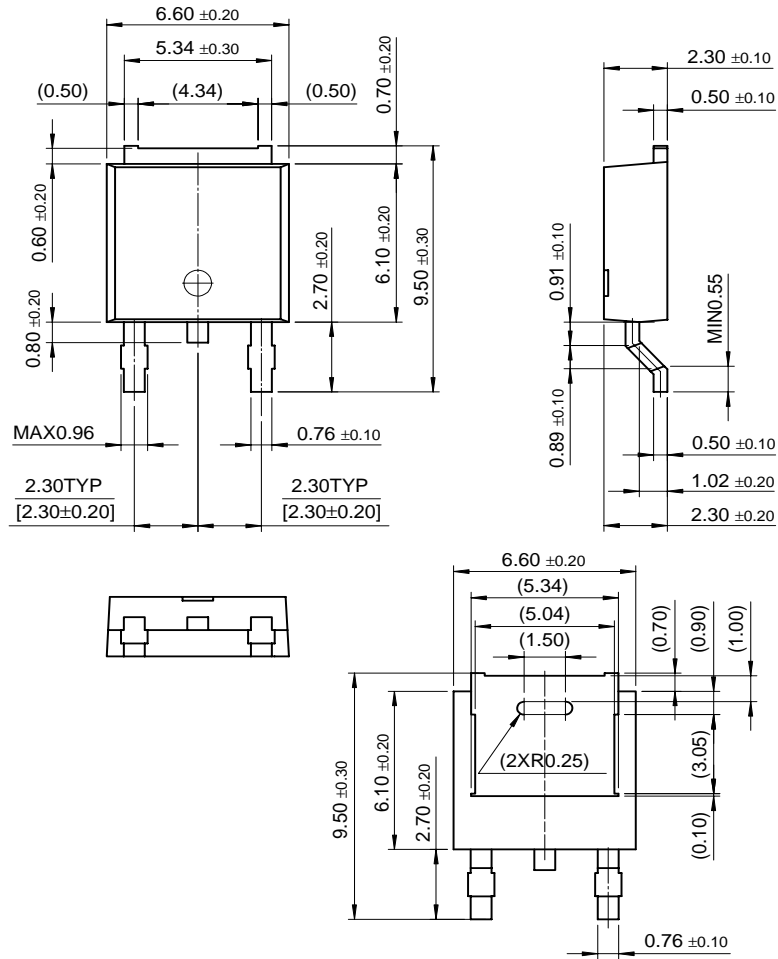


Figure 4. Power Derating

Package Dimensions

D-PAK



Dimensions in Millimeters

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| CROSSVOLT™           | GlobalOptoisolator™ | Power247™           | SuperSOT™-6     |
| DenseTrench™         | GTO™                | PowerTrench®        | SuperSOT™-8     |
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