

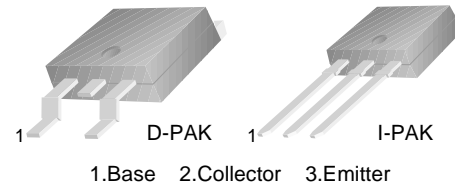


## MJD350

MJD350

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

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



### PNP 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

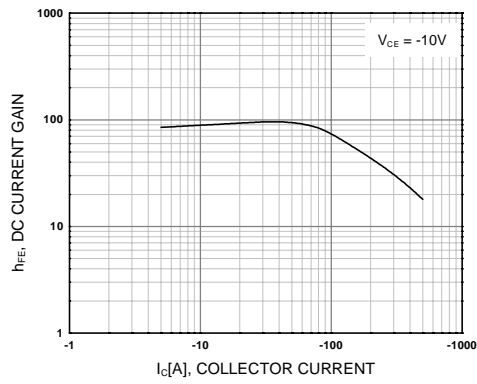


Figure 1. DC current Gain

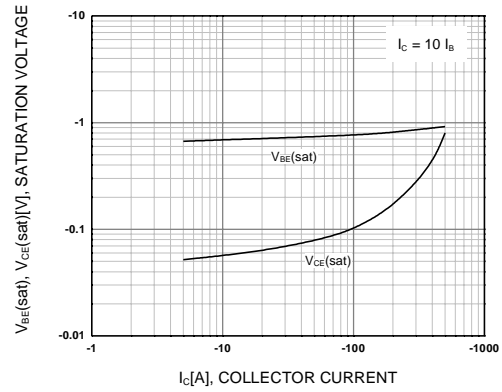


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

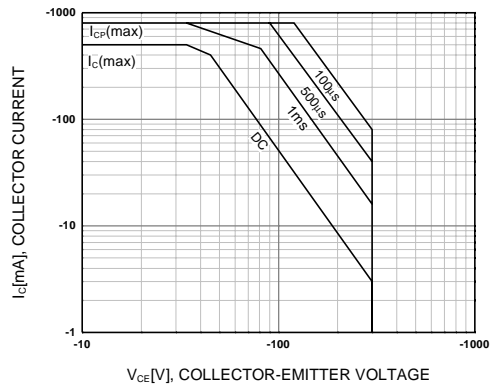


Figure 3. Safe Operating Area

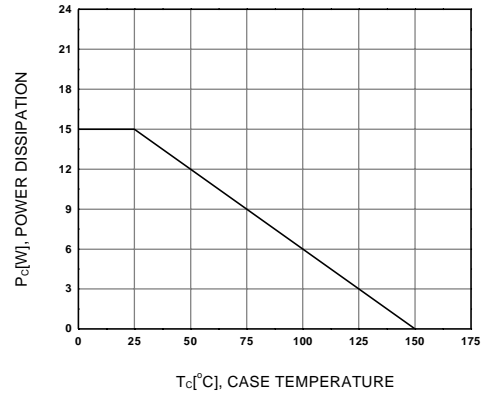
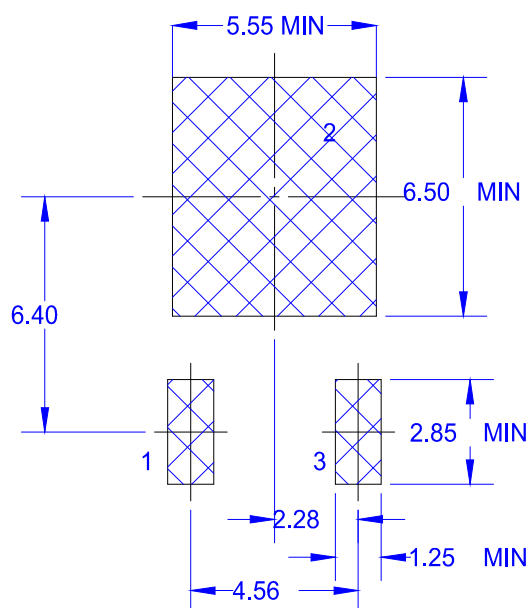
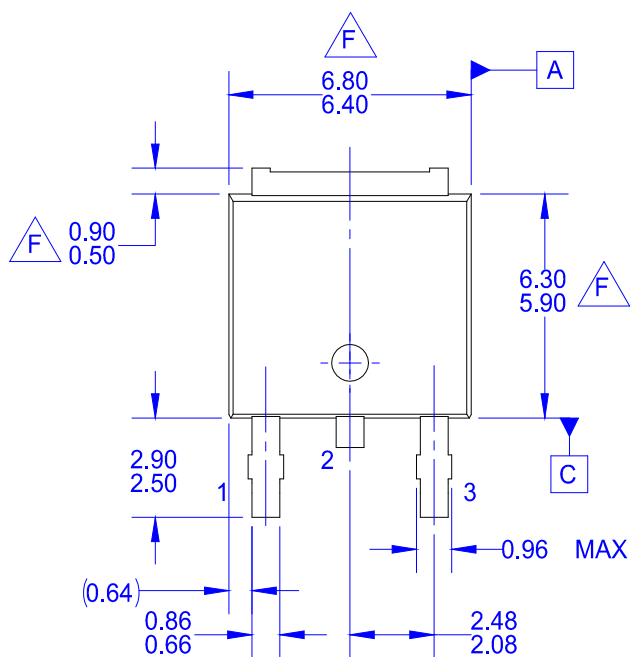
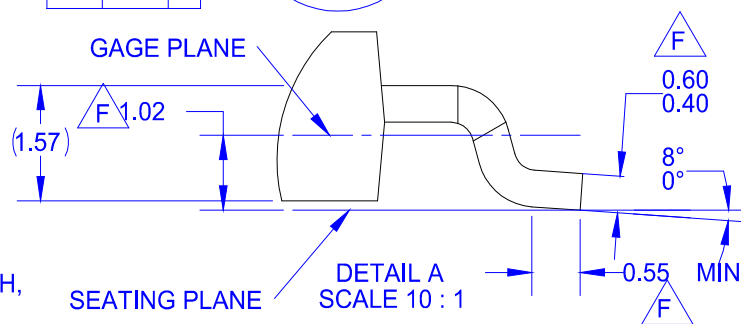
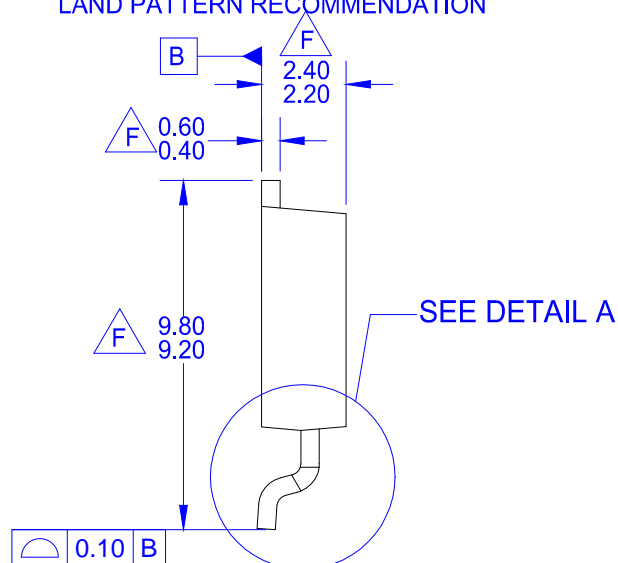
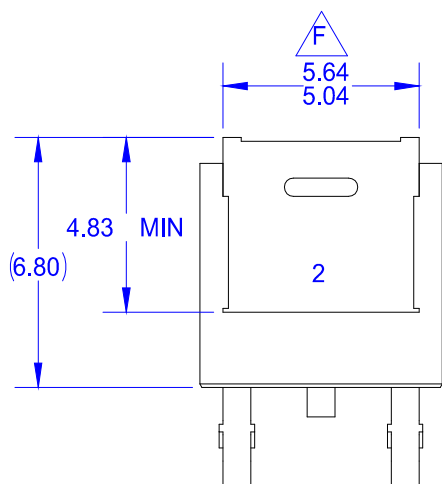


Figure 4. Power Derating



LAND PATTERN RECOMMENDATION



NOTES:UNLESS OTHERWISE SPECIFIED

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