



# MJD350

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## 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

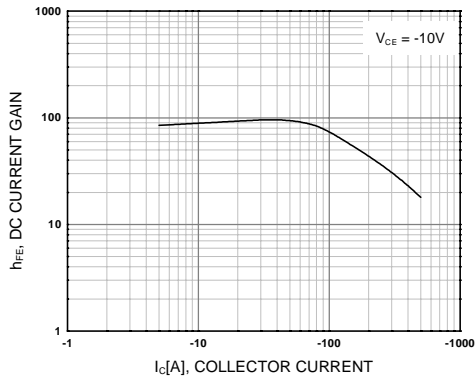


Figure 1. DC current Gain

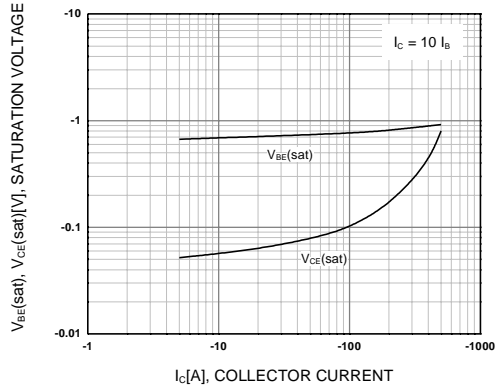


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

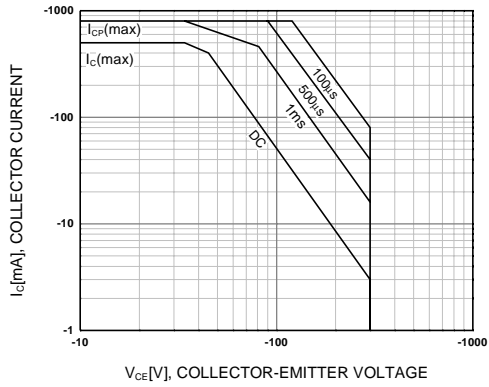


Figure 3. Safe Operating Area

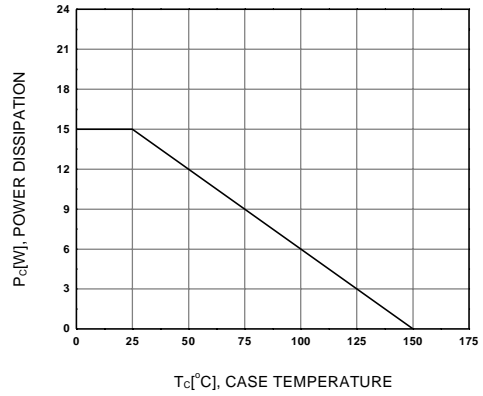
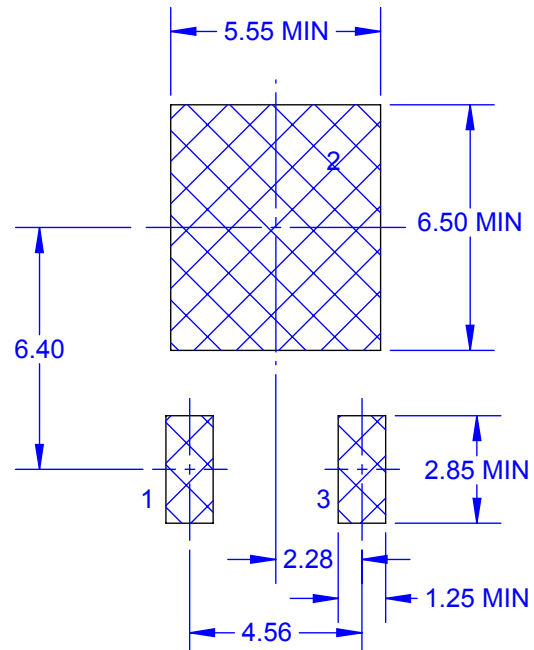
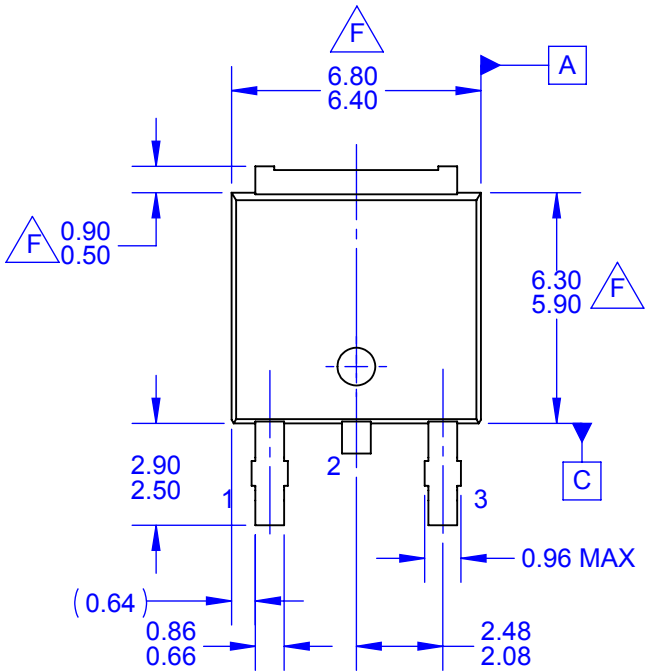
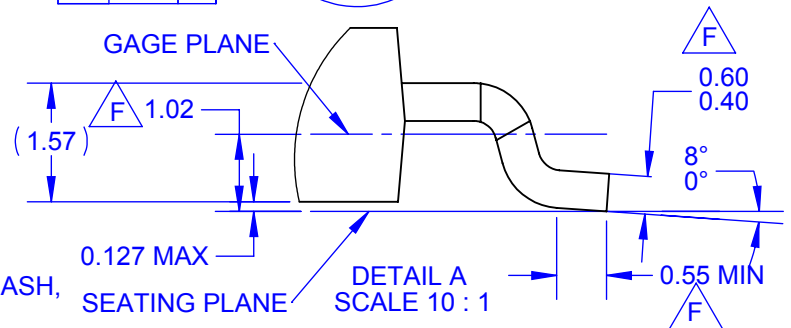
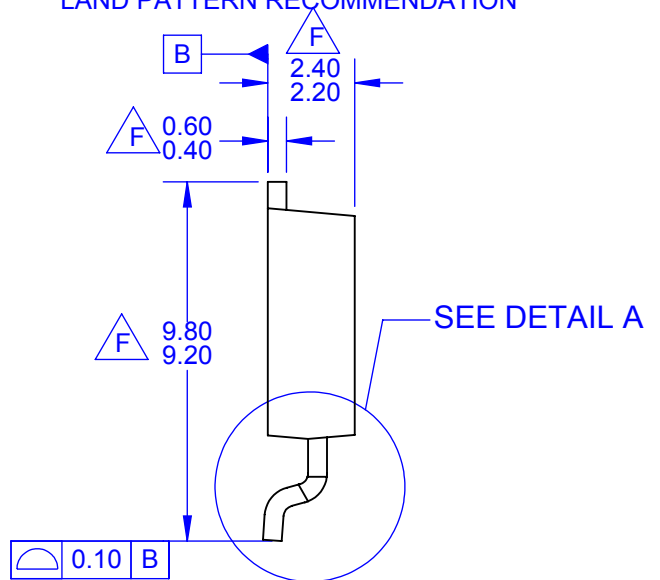
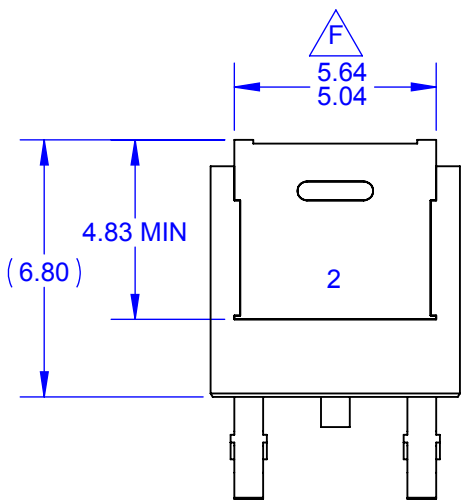


Figure 4. Power Derating



LAND PATTERN RECOMMENDATION



NOTES: UNLESS OTHERWISE SPECIFIED

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- B) ALL DIMENSION ARE IN MILLIMETER
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- D) LAD PATTERN PER IPC7351A ATANDARD TO228P991X239-3N
- E) DRAWING FILE NAME: MKT-TO252D03REV3.
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