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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

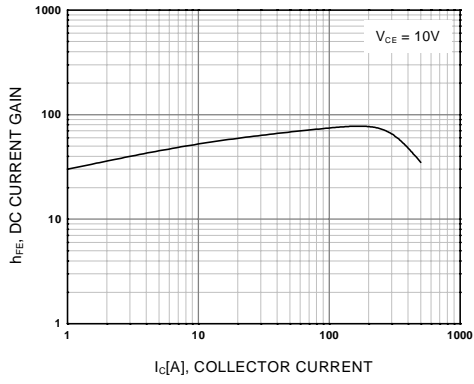


Figure 1. DC current Gain

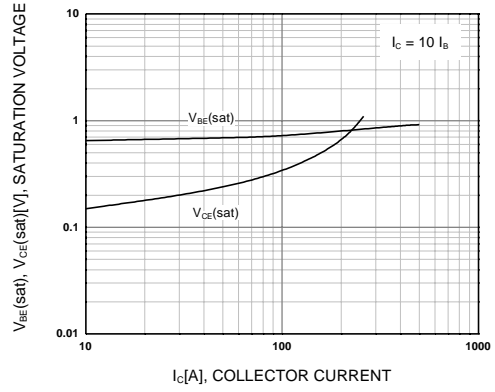


Figure 2. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

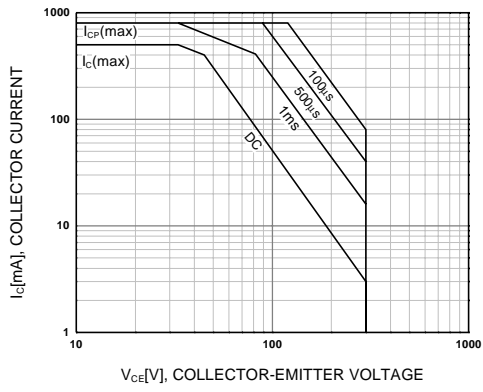


Figure 3. Safe Operating Area

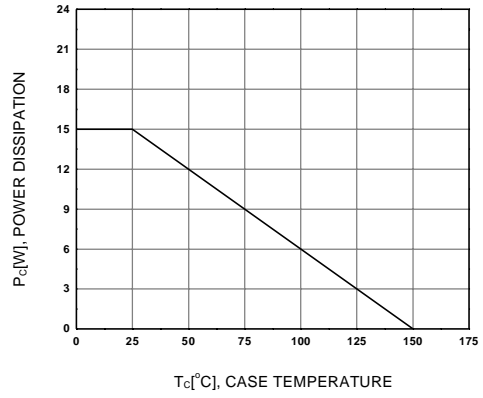
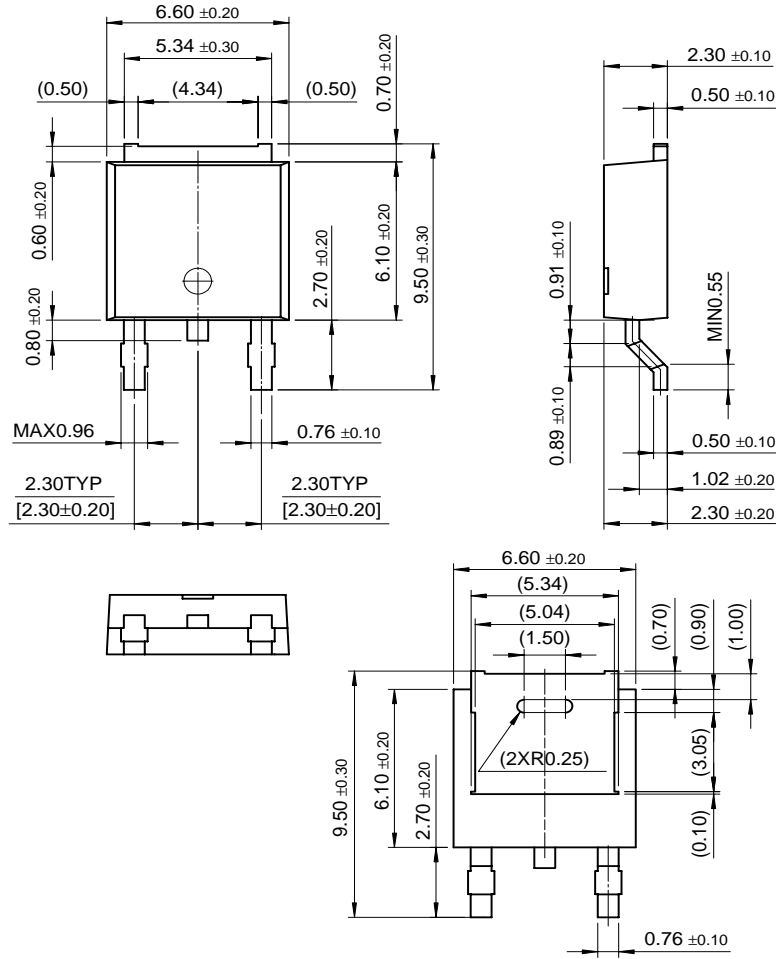


Figure 4. Power Derating

# Package Dimensions

## D-PAK



Dimensions in Millimeters

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