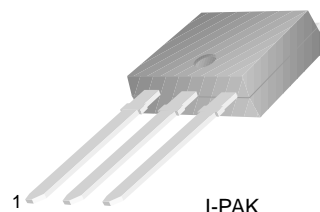


## MJD907

### Power Amplifier Applications

- High DC Current Gain
- Low Collector-Emitter Saturation Voltage
- Built-in a Damper Diode at E-C
- Darlington TR
- Complement to MJD1222



I-PAK  
1. Base 2. Collector 3. Emitter

### PNP Silicon Darlington Transistor

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

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	- 60	V
$V_{CEO}$	Collector-Emitter Voltage	- 40	V
$V_{EBO}$	Emitter-Base Voltage	- 5	V
$I_C$	Collector Current(DC)	- 3	A
$I_B$	Base Current	- 0.3	A
$P_C$	Collector Dissipation ( $T_C=25^\circ\text{C}$ )	15	W
	Collector Dissipation ( $T_a=25^\circ\text{C}$ )	1	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CEO}$	Collector- Emitter Breakdown Voltage	$I_C = - 25\text{mA}$ , $I_B = 0$	- 40			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = - 60\text{V}$ , $I_E = 0$			- 20	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = - 5\text{V}$ , $I_C = 0$			- 2.5	$\mu\text{A}$
$h_{FE1}$ $h_{FE2}$	DC Current Gain	$V_{CE} = - 2\text{V}$ , $I_C = - 1\text{A}$ $V_{CE} = - 2\text{V}$ , $I_C = - 3\text{A}$	2000 1000			
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = - 2\text{A}$ , $I_B = - 4\text{mA}$			- 1.5	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C = - 2\text{A}$ , $I_B = - 4\text{mA}$			- 2	V
$t_{ON}$	Turn ON Time	$V_{CC} = - 30\text{V}$ , $I_C = - 3\text{A}$ $I_{B1} = - I_{B2} = - 6\text{mA}$ $R_L = 10\Omega$		0.3		$\mu\text{s}$
$t_{STG}$	Storage Time			0.6		$\mu\text{s}$
$t_F$	Fall Time			0.25		$\mu\text{s}$

# Typical Characteristics

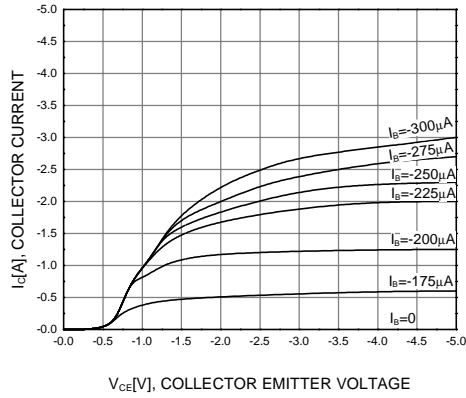


Figure 1. Static Characteristic

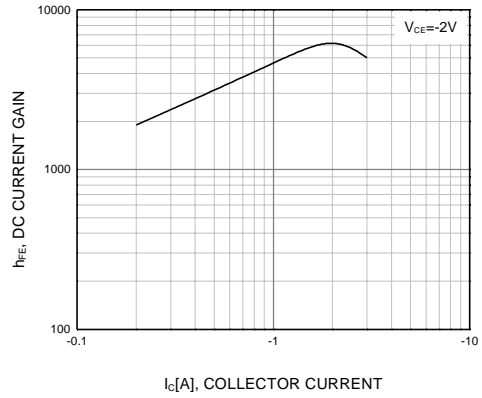


Figure 2. DC current Gain

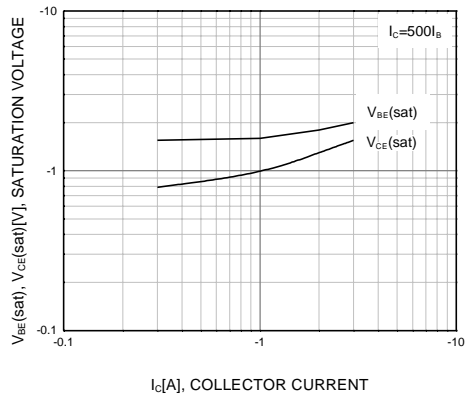


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

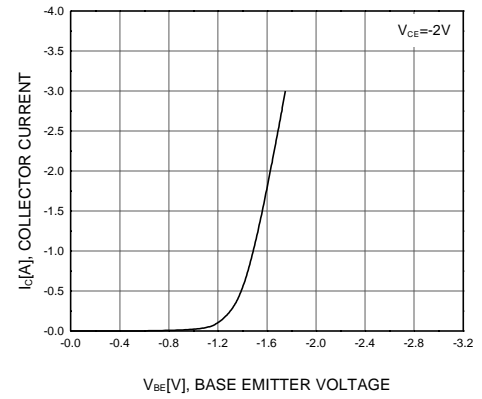


Figure 4. Base-Emitter On Voltage

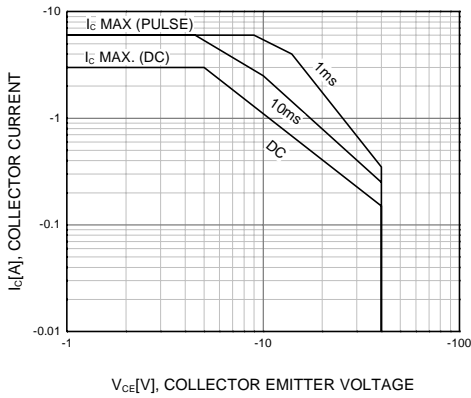


Figure 5. Safe Operating Area

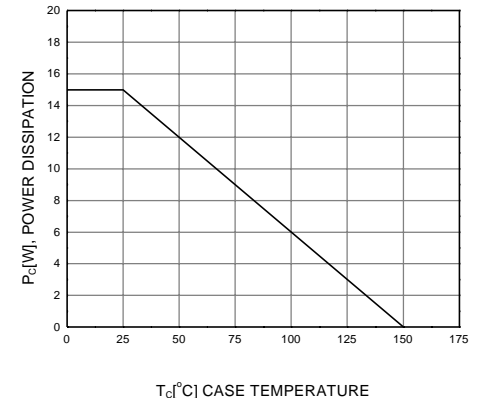
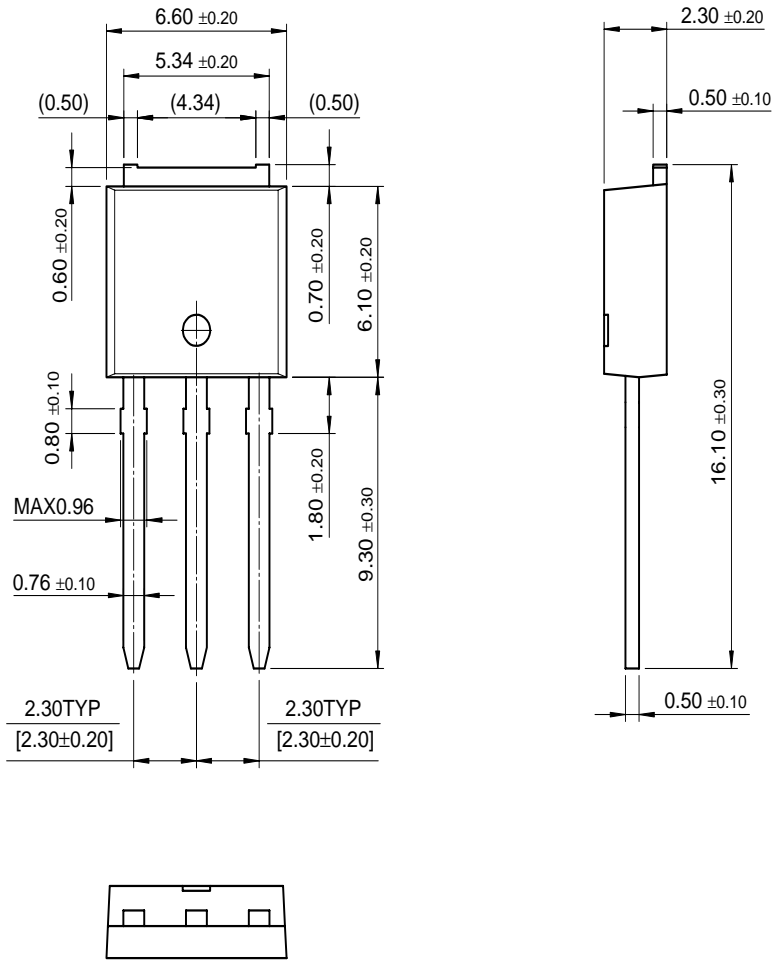


Figure 6. Power Derating

# Package Dimensions

## I-PAK



Dimensions in Millimeters

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