



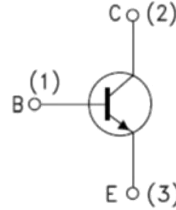
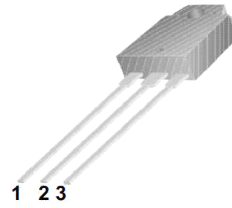
奧德利®  
AUDLEY

B817

**Features:**

- High Current Capability:  $I_C=12A$
- High Power Dissipation
- Extended Safe Operating Area.
- NPN Transistor
- Complement to D1047
- 100% Avalanche Tested

TO-3P



- 1. Base (B)
- 2. Collector (C)
- 3. Emitter (E)

**Absolute Maximum Ratings**  $T_C=25^\circ C$  unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-160	V
$V_{CEO}$	Collector-Emitter Voltage	-140	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current (DC)	-8	A
$I_{CP}$	*Collector Current (Pulse)	-16	A
$P_C$	Collector Dissipation ( $T_C=25^\circ C$ )	80	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	- 40 ~ 150	$^\circ C$

**Electrical Characteristics**  $T_C=25^\circ C$  unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = 5mA, I_E = 0$	-160			V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10mA, R_{BE} = \infty$	-140			V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = 5mA, I_C = 0$	-6			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 80V, I_E = 0$			0.1	mA
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = 4V, I_C = 0$			0.1	mA
$h_{FE1}$	* DC Current Gain	$V_{CE} = 5V, I_C = 1A$	60		200	
$h_{FE2}$	DC Current Gain	$V_{CE} = 5V, I_C = 6A$	20			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 5A, I_B = 0.5A$			2.5	V
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE} = 5V, I_C = 1A$			1.5	V
$f_T$	Current Gain Bandwidth Product	$V_{CE} = 5V, I_C = 1A$		15		MHz
$C_{ob}$	Output Capacitance	$V_{CB} = 10V, f = 1MHz$		210		pF
$t_{ON}$	Turn ON Time	$V_{CC} = 20V$		0.26		$\mu s$
$t_F$	Fall Time	$I_C = 1A = 10I_{B1} = -10I_{B2}$		0.68		$\mu s$
$t_{STG}$	Storage Time	$R_L = 20\Omega$		6.88		$\mu s$

\* Pulse test:  $PW=20\mu s$

**\*  $h_{FE}$  Classification**

Classification	O	Y
$h_{FE1}$	60 ~ 120	100 ~ 200

# Typical Characteristics

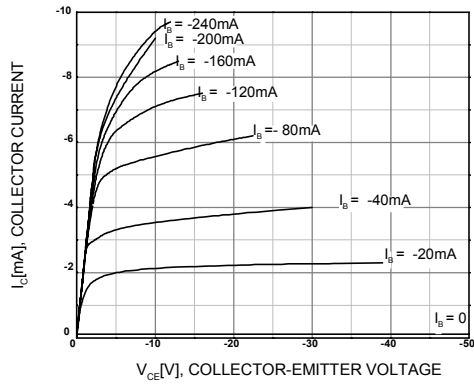


Figure 1. Static Characteristic

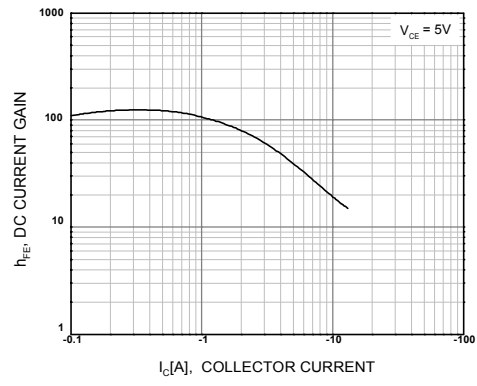


Figure 2. DC current Gain

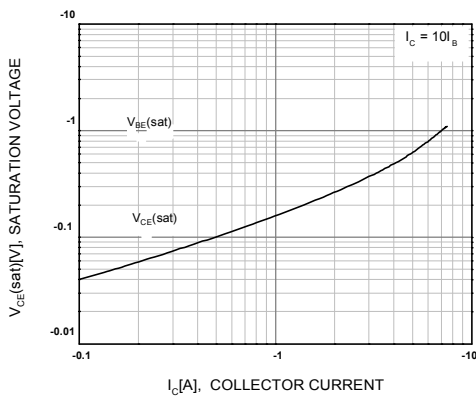


Figure 3. Collector-Emitter Saturation Voltage

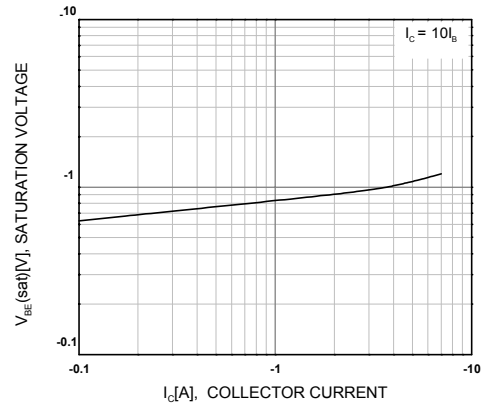


Figure 4. Base-Emitter Saturation Voltage

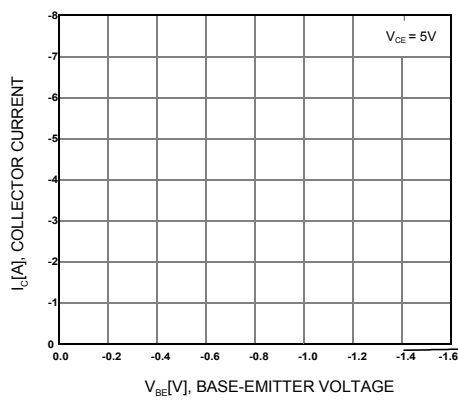


Figure 5. Base-Emitter On Voltage

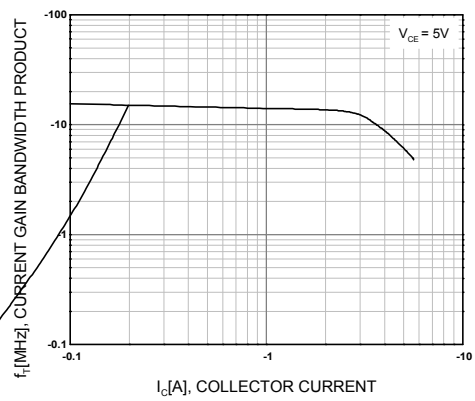


Figure 6. Current Gain Bandwidth Product

## Typical Characteristics (Continued)

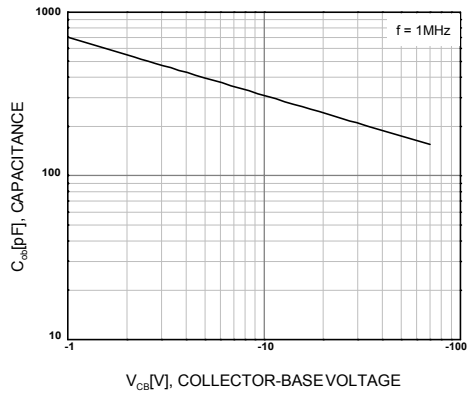


Figure 7. Collector Output Capacitance

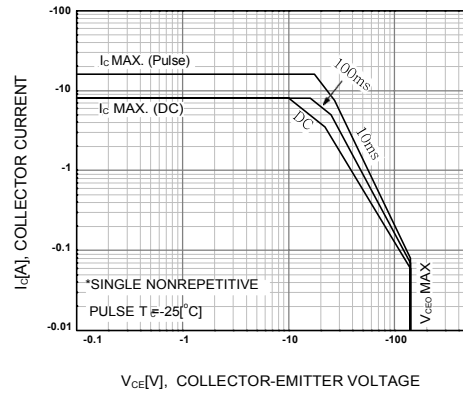


Figure 8. Safe Operating Area

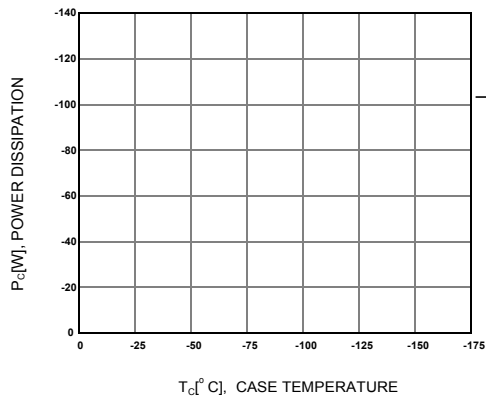


Figure 9. Collector Output Capacitance

# Package Demensions

## TO-3P

