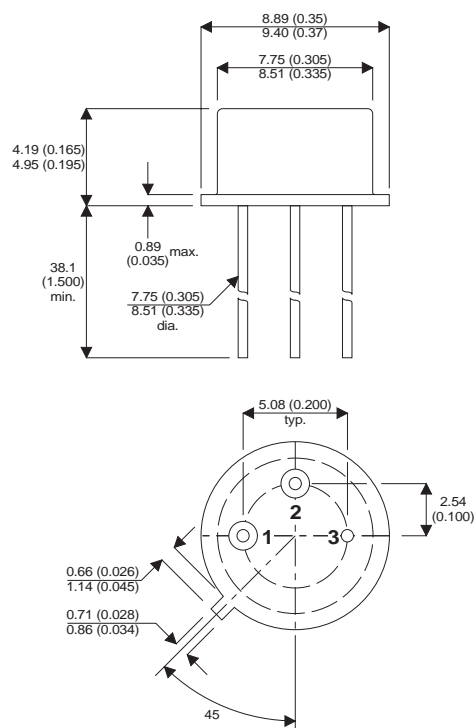


### MECHANICAL DATA

Dimensions in mm



### TO-5

Pin1 - Emitter

Pin2 - Base

Pin3 - Collector

## SMALL SIGNAL PNP TRANSISTORS IN TO-5

### APPLICATIONS

Small signal PNP transistors for relay switching resistor logic circuits and general purpose applications.

### ABSOLUTE MAXIMUM RATINGS ( $T_{case} = 25^{\circ}C$ unless otherwise stated)

		2N5404	2N5405	2N5406	2N5407
$BV_{CBO}$	Collector – Base Breakdown Voltage	- 80V	- 100V	- 80V	- 100V
$BV_{CEO}$	Collector – Emitter Breakdown Voltage	- 80V	- 100V	- 80V	- 100V
$BV_{EBO}$	Emitter – Base Breakdown Voltage	- 6V	-6V	- 6V	-6V
$I_{C(Max)}$	Collector Current	- 5A	-5A	- 5A	-5A
$I_{B(Max)}$	Base Current	- 2A	- 2A	- 2A	- 2A
$P_{TOT}$	Total Power Dissipation (100°C Case)	5W	5W	5W	5W
$T_{STG}, T_J$	Operating and Storage Temperature Range	- 65°C to +200°C			

**ELECTRICAL CHARACTERISTICS** ( $T_{case} = 25^{\circ}C$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CEX}$ Collector Cut-Off Current	$V_{CE} = BV_{CEO} V_{BE} = 1.5V$ $V_{CE} = BV_{CEO} V_{BE} = 1.5V$ $T_C = 150^{\circ}C$			-10 -500	$\mu A$
$V_{CEO}^{(SUS)}$ Collector-Emitter Sustaining Voltage With Base Open	$I_C = -100mA I_B = 0$ 2N5404 2N5406	-80			V
	$I_C = -100mA I_B = 0$ 2N5405 2N5407	-100			
$I_{CEO}$ Collector Cut-Off Current	$V_{CE} = -50V I_C = 0$	-100			$\mu A$
$I_{EBO}$	$V_{EB} = -4V I_C = 0$			-1	$\mu A$
$h_{FE}$ Common Emitter, Small-Signal Value of the Short-Circuit Forward Current Transfer Ratio (f = 1KHz)	$I_C = -2A V_{CE} = -5V$ 2N5404 2N5405	20		60	-
	$I_C = -2A V_{CE} = -5V$ 2N5406 2N5407	40		120	
$V_{CE}^{(SAT)}$ Collector-Emitter Saturation Voltage	$I_C = -2A I_B = -0.2A$			-0.6	V
$V_{BE}^{(SAT)}$ Base-Emitter Saturation Voltage	$I_C = -2A I_B = -0.2A$			-1.2	V
<b>DYNAMIC CHARACTERISTICS</b>					
$C_{OBO}$ Collector Base Capacitance	$V_{CB} = -10V f = 1MHz$			150	pf
$f_t$ Transistion Frequency	$V_{CE} = -5V I_C = -0.2A$	40			MHz
$t_r$ Rise Time	$I_C = -2A$ $I_{B1} = -I_{B2} = 0.2A$			0.5	$\mu$
$t_s$ Storage time	$I_C = -2A$ 2N5404 $I_{B1} = -I_{B2} = 0.2A$ 2N5405			0.75	$\mu$
	$I_C = -2A$ 2N5406 $I_{B1} = -I_{B2} = 2A$ 2N5407			1	
$t_f$ Fall Time	$I_C = -2A$ 2N5404 $I_{B1} = -I_{B2} = 2A$ 2N5405			0.2	$\mu$
	$I_C = -2A$ 2N5406 $I_{B1} = -I_{B2} = 2A$ 2N5407			0.3	

\* Pulse test : Pulse Width < 300 $\mu s$  ,Duty Cycle < 2%

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.