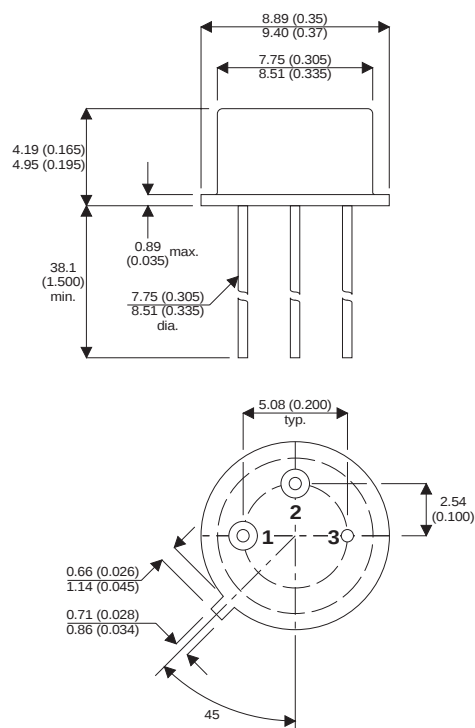


MECHANICAL DATA

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	μA
$V_{CEO}^{(SUS)}$ 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			μA
I_{EBO}	$V_{EB} = -4V$ $I_C = 0$			-1	μA
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
DYNAMIC CHARACTERISTICS					
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	μ
t_s Storage time	$I_C = -2A$ 2N5404 $I_{B1} = -I_{B2} = 0.2A$ 2N5405			0.75	μ
	$I_C = -2A$ 2N5406 $I_{B1} = -I_{B2} = 2A$ 2N5407			1	
t_f Fall Time	$I_C = -2A$ 2N5404 $I_{B1} = -I_{B2} = 2A$ 2N5405			0.2	μ
	$I_C = -2A$ 2N5406 $I_{B1} = -I_{B2} = 2A$ 2N5407			0.3	

* Pulse test : Pulse Width < 300 μs ,Duty Cycle < 2%