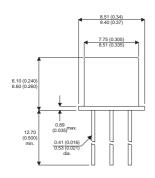
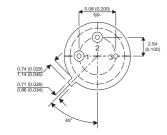




MECHANICAL DATA

Dimensions in mm (inches)





TO39 PACKAGE (TO-205AD)

Underside View

Pin 2 = Base Pin 1 = Emitter Pin 3 = Collector

SMALL SIGNAL PNP TRANSISTORS

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V _{CB}	Collector – Base Voltage	25V		
V_{CE}	Collector – Emitter Voltage	25V		
V_{EB}	Emitter – Base Voltage	16V		
I _{CM}	Collector Current	100mA		
I _{C(AV)}	Collector Current ave Over any 20ms	30mA		
I _{BM}	Base Current	30mA		
$I_{B(AV)}$	Base Current ave Over any 20ms	15mW		
I _{EM}	Emitter Current	100mA		
$I_{E(AV)}$	Emitter Current ave Over any 20ms	65mA		
P _{TOT}	Total Power Dissipation	230mW		

Semelab PIc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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THERMAL CHARACTERISTICS

	CHARACTERISTICS	
θ_{j-amb}	Junction to Ambient	0.3°C/mW
$\theta_{\text{j-case}}$	Junction to Case	0.12°C/mW

ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

Parameter		Test Conditions		Min.	Тур.	Max.	Unit
		$V_{CB} = -6V$	I _E = 0		1	100	nA
I _{CBO}	Collector Cut-off Current	$V_{CB} = -6V$	I _E = 0		0.1	2.5	μА
		$T_{amb} = 100$ °C					
I _{EBO}	Emitter Cut-off Current	V _{EB} = -6V	I _C = 0		1	100	nA
		V _{EB} = -6V	I _C = 0		0.1	2.5	μА
		$T_{amb} = 100$ °C					
h _{FE}	DC Current Gain	$I_C = 30 \text{mA}$	$V_{CE} = -1V$	12	30		_
		I _C = 150mA	V _{CE} = - 1V	10		50	
		I _{CM} = 300mA	V _{CE} = - 6V		15		
V _{CE(sat)}	Collector – Emitter Saturation Voltage	I _C = 150mA	$I_B = 15mA$		-0.46	-1.1	V
V_{BE}	Base – Emitter Voltage	I _C = 150mA	I _B = - 1V		-1.5	-1.9	V
I _B	Base – Current	I _E = 150mA	$V_{CB} = 0$	3		14	mA
NF	Noise Figure	I _C = 500μA	$V_{CE} = -2V$		8		dB
		f = 1kc/s	$R_s = 500\Omega$		O		
h _{fe}	Small Signal Current Gain	I _C = 10mA	$V_{CE} = -6V$	15	35	100	_
		f = 1kc/s		13			
f _T	Transistion Frequency	$I_C = 1mA$	$V_{CE} = -6V$	0.45	1.5		MHz

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

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