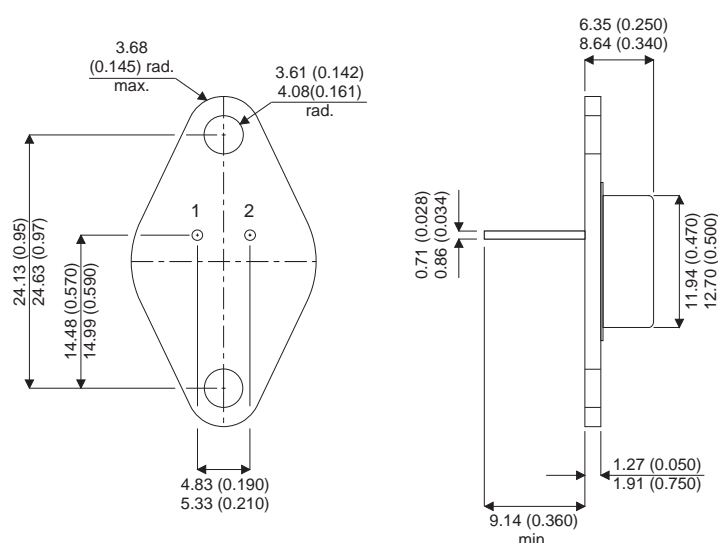


MECHANICAL DATA

Dimensions in mm


POWER TRANSISTORS
PNP SILICON
FEATURES

- Hermetically Package.
- Low Saturation Voltage
- High Gain

TO66 Package (TO-213AA)**Complementary to NPN 2N3740**

Pin 1 = Base Pin 2 = Emitter Case = Collector

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

V_{CBO}	Collector – Base Voltage	80V
V_{CEO}	Collector – Emitter Voltage ($I_{\text{B}} = 0$)	80V
V_{EBO}	Emitter – Base Voltage ($I_{\text{C}} = 0$)	7V
I_{C}	Collector Current	4A
$I_{\text{C(PK)}}$	Peak Collector Current	10A
I_{B}	Base Current	2A
P_{D}	Total Device Dissipation at $T_{\text{case}} = 25^{\circ}\text{C}$	25W
	Derate 25°C	0.143W/ $^{\circ}\text{C}$
T_{stg}	Operating and Storage Temperature Range	-65 to 200°C

Semelab Plc 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.

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

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
ELECTRICAL CHARACTERISTICS							
$V_{\text{CEO(sus)}}^*$	Collector – Emitter Sustaining Voltage	$I_{\text{C}} = 100\text{mA}$	$I_{\text{B}} = 0$	80			V
I_{CBO}	Collector Base Cut–Off Current	$V_{\text{CB}} = 80\text{V}$	$I_{\text{E}} = 0$			100	μA
I_{CEO}	Collector Emiiter Cut–Off Current	$V_{\text{CE}} = 60\text{V}$	$I_{\text{B}} = 0$			1.0	mA
I_{CEX}	Collector Cut–Off Current	$V_{\text{CE}} = 80\text{V}$	$V_{\text{BE(Off)}} = 1.5\text{V}$			100	μA
		$V_{\text{CE}} = 60\text{V}$	$V_{\text{BE(Off)}} = 1.5\text{V}$			1	mA
			$T_{\text{C}} = 150^{\circ}\text{C}$				
I_{EBO}	Emitter Base Cut–Off Current	$V_{\text{EB}} = 7\text{V}$				0.5	mA
h_{FE}^*	DC Current Gain	$I_{\text{C}} = 100\text{mA}$	$V_{\text{CE}} = 1\text{V}$	40			—
		$I_{\text{C}} = 250\text{mA}$	$V_{\text{CE}} = 1\text{V}$	30		180	
		$I_{\text{C}} = 500\text{mA}$	$V_{\text{CE}} = 1\text{V}$	20			
		$I_{\text{C}} = 1\text{A}$	$V_{\text{CE}} = 1\text{V}$	10			
$V_{\text{CE(sat)}}^*$	Collector – Emitter Saturation Voltage	$I_{\text{C}} = 1\text{A}$	$I_{\text{B}} = 125\text{mA}$			0.6	V
V_{BE}^*	Base – Emitter Saturation Voltage	$I_{\text{C}} = 250\text{mA}$	$I_{\text{B}} = 1\text{V}$			1.0	
DYNAMIC CHARACTERISTICS							
f_{t}	Transition Frequency	$I_{\text{C}} = 100\text{mA}$	$V_{\text{CE}} = 10\text{V}$ $f = 1\text{MHz}$	3			MHz
				4			
C_{ob}	Output Capacitance	$V_{\text{CB}} = 10\text{V}$	$I_{\text{C}} = 0$ $f = 100\text{KHz}$			100	pF
h_{fe}	Small Signal Current Gain	$I_{\text{C}} = 50\text{mA}$	$V_{\text{CE}} = 10\text{V}$ $f = 1\text{KHz}$	25			—

* Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $< 2\%$