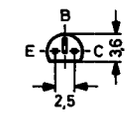
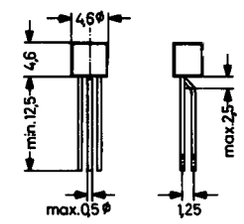
2906, 2907

PNP Silicon Epitaxial Planar Transistors
with high cutoff frequency, for high speed switching





Plastic case ≈ JEDEC TO-92
TO-18 compatible
The case is impervious to light

Weight approximately 0.18 g
Dimensions in mm

Absolute Maximum Ratings

	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	60	V
Collector Emitter Voltage	$-V_{CEO}$	40	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	0.8	A
Power Dissipation at T_{amb} = 25 °C	P_{tot}	625[1)]	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	−55 to +150	°C

[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

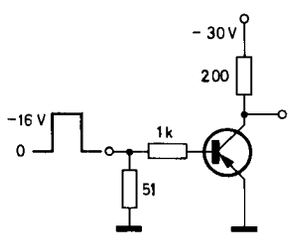


Fig. 1:
Test circuit for turn-on time

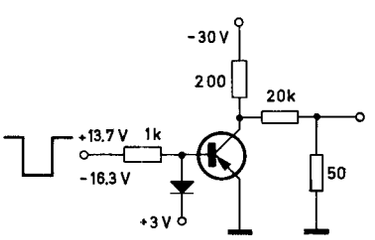


Fig. 2:
Test circuit for turn-off time

Characteristics at T_{amb} = 25 °C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at $-V_{CE}$ = 10 V, $-I_C$ = 0.1 mA	**2906**	h_{FE}	20	–	–	–
	2907	h_{FE}	35	–	–	–
at $-V_{CE}$ = 10 V, $-I_C$ = 1 mA	**2906**	h_{FE}	25	–	–	–
	2907	h_{FE}	50	–	–	–
at $-V_{CE}$ = 10 V, $-I_C$ = 10 mA	**2906**	h_{FE}	35	–	–	–
	2907	h_{FE}	75	–	–	–
at $-V_{CE}$ = 10 V, $-I_C$ = 150 mA	**2906**	h_{FE}	40	–	120	–
	2907	h_{FE}	100	–	300	–
at $-V_{CE}$ = 10 V, $-I_C$ = 0.5 A	**2906**	h_{FE}	20	–	–	–
	2907	h_{FE}	30	–	–	–
Collector Saturation Voltage						
at $-I_C$ = 150 mA, $-I_B$ = 15 mA		$-V_{CEsat}$	–	–	0.4	V
at $-I_C$ = 500 mA, $-I_B$ = 50 mA		$-V_{CEsat}$	–	–	1.6	V
Base Saturation Voltage						
at $-I_C$ = 150 mA, $-I_B$ = 15 mA		$-V_{BEsat}$	–	–	1.3	V
at $-I_C$ = 500 mA, $-I_B$ = 50 mA		$-V_{BEsat}$	–	–	2.6	V
Collector Cutoff Current						
at $-V_{CB}$ = 50 V		$-I_{CBO}$	–	–	20	nA
at $-V_{CB}$ = 50 V, T_{amb} = 125 °C		$-I_{CBO}$	–	–	20	μA
Collector Base Breakdown Voltage at $-I_C$ = 10 μA		$-V_{(BR)CBO}$	60	–	–	V
Collector Emitter Breakdown Voltage at $-I_C$ = 10 mA		$-V_{(BR)CEO}$	40	–	–	V
Emitter Base Breakdown Voltage at $-I_E$ = 10 μA		$-V_{(BR)EBO}$	5	–	–	V
Gain Bandwidth Product at $-V_{CE}$ = 20 V, $-I_C$ = 20 mA, f = 100 MHz		f_T	200	–	–	MHz
Collector Base Capacitance at $-V_{CB}$ = 10 V, f= 100 kHz		C_{CBO}	–	–	10	pF
Thermal Resistance Junction to Ambient		R_{thA}	–	–	200[1)]	K/W
Turn-On Time (see Fig. 1) at $-I_{B1}$ = 15 mA, $-I_C$ = 150 mA		$t_d + t_r$	–	–	40	ns
Turn-Off Time (see Fig. 2) at $-I_{B1}$ = 15 mA, I_{B2} = 15 mA, $-I_C$ = 150 mA		$t_s + t_f$	–	–	250	ns

[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case