Electrical Characteristics at Ta=25°C

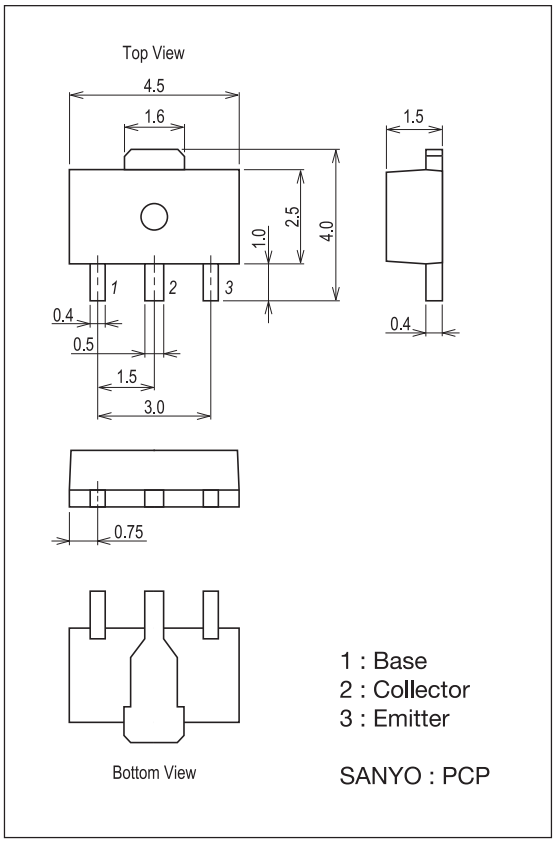
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	V_{CB}=(-)20V, I_E=0A			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(-)4V, I_C=0A			(-)0.1	μA
DC Current Gain	$h_{FE}1$	V_{CE}=(-)2V, I_C=(-)100mA	100*		560*	
	$h_{FE}2$	V_{CE}=(-)2V, I_C=(-)1.5A	65			
Gain-Bandwidth Product	f_T	V_{CE}=(-)10V, I_C=(-)50mA		150		MHz
Output Capacitance	Cob	V_{CB}=(-)10V, f=1MHz		(32)~~19~~		pF
Collector-to-Emitter Saturation Voltage	V_{CE}(sat)	I_C=(-)1.5A, I_B=(-)75mA		(-0.35)~~0.18~~	(-0.6)~~0.4~~	V
Base-to-Emitter Saturation Voltage	V_{BE}(sat)	I_C=(-)1.5A, I_B=(-)75mA		(-)0.85	(-)1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=(-)10μA, I_E=0A	(-)30			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=(-)1mA, R_{BE}=∞	(-)25			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=(-)10μA, I_C=0A	(-)6			V
Turn-ON Time	t_{on}	See specified Test Circuit.		(60)~~60~~		ns
Storage Time	t_{stg}	See specified Test Circuit.		(350)~~550~~		ns
Fall Time	t_f	See specified Test Circuit.		(25)~~25~~		ns

*: The 2SB1121 ~~/ 2SD1621~~ are classified by 100mA h_{FE} as follows:

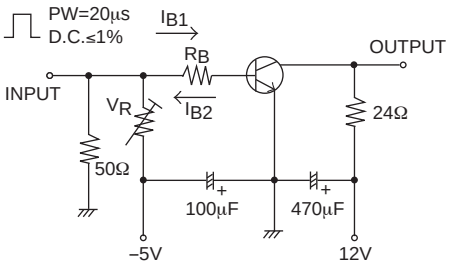
Rank	R	S	T	U
h_{FE}	100 to 200	140 to 280	200 to 400	280 to 560

Package Dimensions

unit : mm (typ)
7007B-004



Switching Time Test Circuit



I_C=20I_{B1}= –20I_{B2}=500mA
(For PNP, the polarity is reversed)