

2SB951, 2SB951A

Silicon PNP Epitaxial Planar Darlington Type

Medium Speed Switching
Complementary Pair with 2SD1277, 2SD1277A

Features

- High DC current gain (h_{FE})
- High speed switching
- "Full Pack" package for simplified mounting on a heat sink with one screw

Absolute Maximum Ratings ($T_c=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Collector-base voltage	2SB951	-60	V
	2SB951A	-80	
Collector-emitter voltage	2SB951	-60	V
	2SB951A	-80	
Emitter-base voltage	V_{EBO}	-7	V
Peak collector current	I_{CP}	-12	A
Collector current	I_C	-8	A
Collector power dissipation	$T_c=25^\circ\text{C}$	45	W
	$T_a=25^\circ\text{C}$	2	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

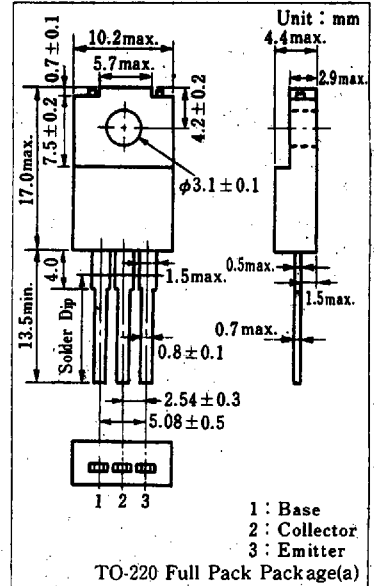
Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -60\text{V}, I_E = 0$			-100	μA
		$V_{CB} = -80\text{V}, I_E = 0$			-100	
Emitter cutoff current	I_{EBO}	$V_{EB} = -7\text{V}, I_C = 0$			-2	mA
Collector-emitter voltage	V_{CEO}	$I_C = -30\text{mA}, I_B = 0$	-60			V
			-80			
DC current gain	h_{FE1}^*	$V_{CE} = -3\text{V}, I_C = -4\text{A}$	1000		10000	
			h_{FE2}	500		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -4\text{A}, I_B = -8\text{mA}$			-1.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -4\text{A}, I_B = -8\text{mA}$			-2	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -1\text{A}, f = 1\text{MHz}$		20		MHz
Turn-on time	t_{on}	$I_C = -4\text{A}, I_{B1} = -8\text{mA}, I_{B2} = 8\text{mA}, V_{CC} = -50\text{V}$		0.5		μs
Storage time	t_{stg}			2		μs
Collector current fall time	t_f			1		μs

* h_{FE1} Classifications

Class	R	Q	P
h_{FE1}	1000 ~ 2500	2000 ~ 5000	4000 ~ 10000

Package Dimensions



Inner Circuit

