

2SB940, 2B940A

Silicon PNP epitaxial planar type

For power amplification

For TV vertical deflection output

Complementary to 2SD1264 and 2SD1264A

Features

- High collector to emitter voltage V_{CE0}
- Large collector power dissipation P_C
- Full-pack package which can be installed to the heat sink with one screw

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

Parameter		Symbol	Rated	Unit
Collector to base voltage	2SB940	V_{CBO}	-200	V
	2SB940A		-200	
Collector to emitter voltage	2SB940	V_{CEO}	-150	V
	2SB940A		-180	
Emitter to base voltage		V_{EBO}	-6	V
Peak collector current		I_{CP}	-3	A
Collector current		I_C	-2	A
Collector power dissipation	$T_C=25^\circ\text{C}$	P_C	30	W
	$T_a=25^\circ\text{C}$		2	
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature		T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current		I_{CBO}	$V_{CB} = -200\text{V}, I_E = 0$			-50	μA
Emitter cutoff current		I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-50	μA
Collector to base voltage		V_{CBO}	$I_C = -50\mu\text{A}, I_E = 0$	-200			V
Collector to emitter voltage	2SB940	V_{CEO}	$I_C = -5\text{mA}, I_B = 0$	-150			V
	2SB940A			-180			
Emitter to base voltage		V_{EBO}	$I_E = -500\mu\text{A}, I_C = 0$	-6			V
Forward current transfer ratio		h_{FE1}^*	$V_{CE} = -10\text{V}, I_C = -150\text{mA}$	60		240	
		h_{FE2}	$V_{CE} = -10\text{V}, I_C = -400\text{mA}$	50			
Base to emitter voltage		V_{BE}	$V_{CE} = -10\text{V}, I_C = -400\text{mA}$			-1	V
Collector to emitter saturation voltage		$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-1	V
Transition frequency		f_T	$V_{CE} = -10\text{V}, I_C = -0.5\text{A}, f = 10\text{MHz}$		30		MHz

* h_{FE1} Rank classification

Rank	Q	P
h_{FE1}	60 to 140	100 to 240



