

2SB940, 2B940A

Silicon PNP epitaxial planar type

For power amplification

For TV vertical deflection output

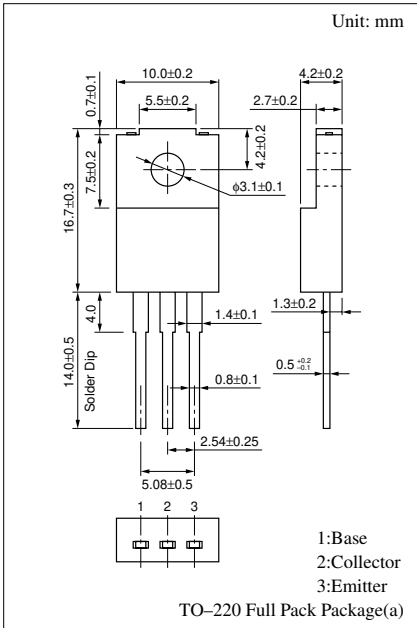
Complementary to 2SD1264 and 2SD1264A

■ Features

- High collector to emitter voltage V_{CEO}
- 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	Ratings	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	$^\circ\text{C}$

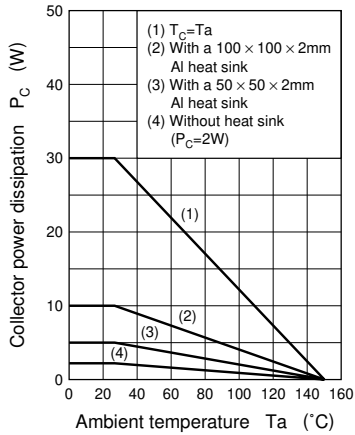
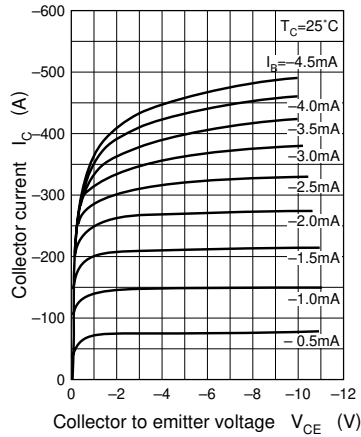
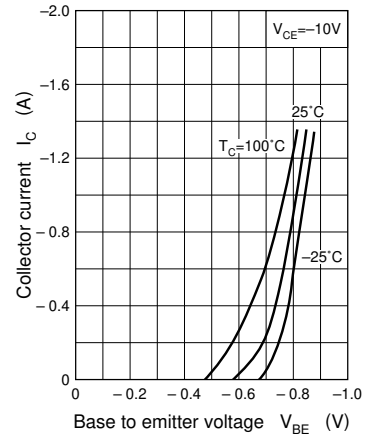
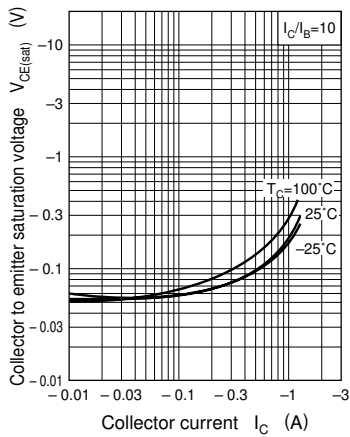
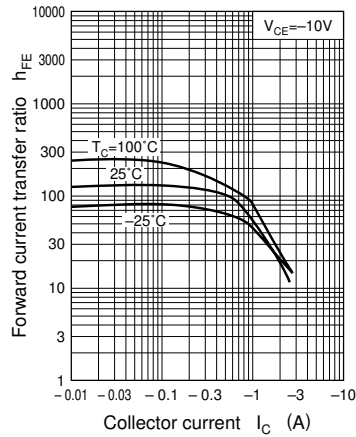
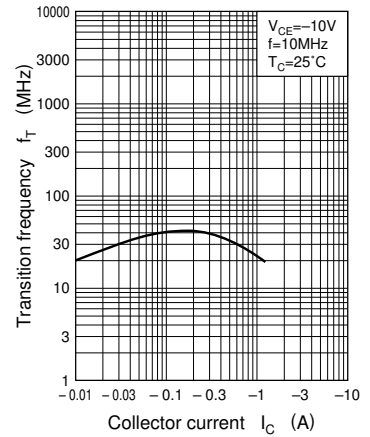


■ Electrical Characteristics ($T_C=25^\circ\text{C}$)

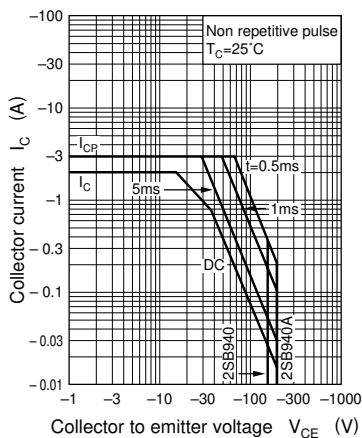
Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current		I _{CBO}	V _{CB} = −200V, I _E = 0			−50	μA
Emitter cutoff current		I _{EBO}	V _{EB} = −4V, I _C = 0			−50	μA
Collector to base voltage		V _{CBO}	I _C = −50μA, I _E = 0	−200			V
Collector to emitter voltage	2SB940	V _{CEO}	I _C = −5mA, I _B = 0	−150			V
	2SB940A			−180			
Emitter to base voltage		V _{EBO}	I _E = −500μA, I _C = 0	−6			V
Forward current transfer ratio		h _{FE1} [*]	V _{CE} = −10V, I _C = −150mA	60		240	
		h _{FE2}	V _{CE} = −10V, I _C = −400mA	50			
Base to emitter voltage		V _{BE}	V _{CE} = −10V, I _C = −400mA			−1	V
Collector to emitter saturation voltage		V _{CE(sat)}	I _C = −500mA, I _B = −50mA			−1	V
Transition frequency		f _T	V _{CE} = −10V, I _C = − 0.5A, f = 10MHz		30		MHz

* h_{FE1} Rank classification

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

$P_C - T_a$  $I_C - V_{CE}$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_C$ 

Area of safe operation (ASO)

 $R_{th(t)} - t$ 