

SANYO

No.3175

2SB1325/2SD1999

PNP/NPN Epitaxial Planar Silicon Transistors

Compact Motor Driver Applications

Features

- Low saturation voltage
- Contains diode between collector and emitter
- Contains bias resistance between base and emitter
- Large current capacity
- Small-sized package making it easy to provide high-density, small-sized hybrid ICs

() : 2SB1325

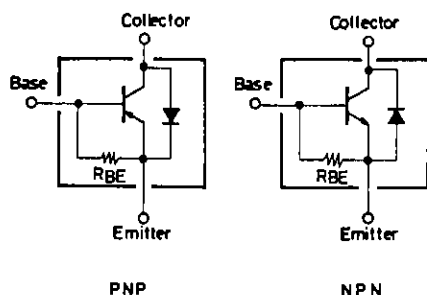
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

			unit
Collector to Base Voltage	V_{CB0}	(-)25	V
Collector to Emitter Voltage	V_{CEO}	(-)20	V
Emitter to Base Voltage	V_{EBO}	(-)6	V
Collector Current	I_C	(-)4	A
Collector Current(Pulse)	I_{CP}	(-)6	A
Collector Dissipation	P_C	Mounted on ceramic board ($250\text{mm}^2 \times 0.8\text{mm}$)	1.5 W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

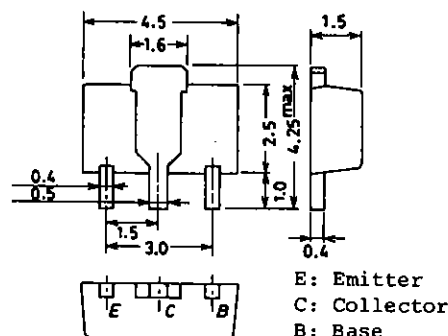
Electrical Characteristics at $T_a = 25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)20\text{V}, I_E = 0$			(-)1.0	μA
DC Current Gain	$h_{FE}(1)$	$V_{CE} = (-)2\text{V}, I_C = (-)0.5\text{A}$	70			
	$h_{FE}(2)$	$V_{CE} = (-)2\text{V}, I_C = (-)3\text{A}$	50			
Gain-Bandwidth Product	f_T	$V_{CE} = (-)2\text{V}, I_C = (-)0.5\text{A}$		(300)200		MHz
Output Capacitance	c_{ob}	$V_{CB} = (-)10\text{V}, f = 1\text{MHz}$		(60)45		pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)3\text{A}, I_B = (-)150\text{mA}$		(-)0.25	(-)0.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)3\text{A}, I_B = (-)150\text{mA}$			(-)1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu\text{A}, I_E = 0$	(-)25			V
C-E Breakdown Voltage	$V_{(BR)CEO(1)}$	$I_C = (-)10\mu\text{A}, R_{BE} = \infty$	(-)25			V
	$V_{(BR)CEO(2)}$	$I_C = (-)10\text{mA}, R_{BE} = \infty$	(-)20			V
Diode Forward Voltage	V_F	$I_F = 0.5\text{A}$			1.5	V
Base to Emitter Resistance	R_{BE}			1.5		k Ω

Marking 2SB1325 : BM
2SD1999 : DN

Electrical Connection**Package Dimensions 2038**

(unit : mm)



SANYO: PCP

(Bottom View)

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