



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 Ta = 25°C

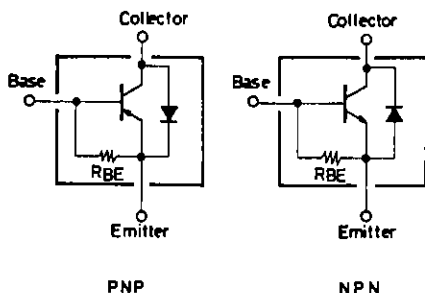
			unit
Collector to Base Voltage	V _{CB0}	(-)-25	V
Collector to Emitter Voltage	V _{CEO}	(-)-20	V
Emitter to Base Voltage	V _{EBO}	(-)-6	V
Collector Current	I _C	(-)-4	A
Collector Current(Pulse)	I _{CP}	(-)-6	A
Collector Dissipation	P _C	Mounted on ceramic board (250mm ² × 0.8mm)	1.5 W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = (-)20V, I _E = 0			(-)-1.0	μA
DC Current Gain	h _{FE} (1)	V _{CE} = (-)2V, I _C = (-)0.5A	70			
	h _{FE} (2)	V _{CE} = (-)2V, I _C = (-)3A	50			
Gain-Bandwidth Product	f _T	V _{CE} = (-)2V, I _C = (-)0.5A		(300)200		MHz
Output Capacitance	c _{ob}	V _{CB} = (-)10V, f = 1MHz		(60)45		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = (-)3A, I _B = (-)150mA		(-)-0.25	(-)-0.5	V
B-E Saturation Voltage	V _{BE(sat)}	I _C = (-)3A, I _B = (-)150mA			(-)-1.5	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = (-)10μA, I _E = 0	(-)-25			V
C-E Breakdown Voltage	V _{(BR)CEO(1)}	I _C = (-)10μA, R _{BE} = ∞	(-)-25			V
	V _{(BR)CEO(2)}	I _C = (-)10mA, R _{BE} = ∞	(-)-20			V
Diode Forward Voltage	V _F	I _F = 0.5A			1.5	V
Base to Emitter Resistance	R _{BE}			1.5		kΩ

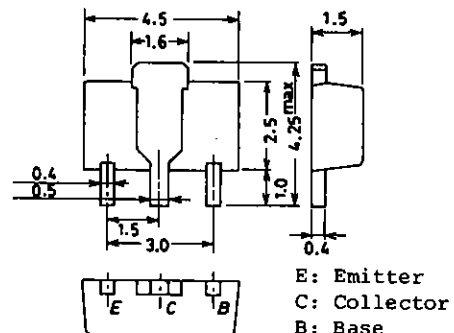
Marking 2SB1325 : BM
2SD1999 : DN

Electrical Connection



Package Dimensions 2038

(unit : mm)



E: Emitter
C: Collector
B: Base

SANYO: PCP
(Bottom View)

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