2SB1527



Compact Motor Driver Applications

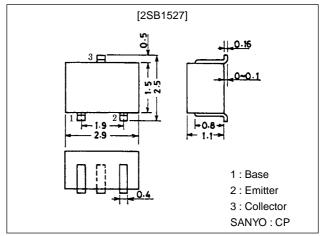
Features

- · Low saturation voltage.
- · Contains a diode between collector and emitter.
- · Contains a bias resistor between base and emitter.
- · Large current capacity.
- · Compact package making it easy to realize highdensity, small-sized hybrid ICs.

Package Dimensions

unit:mm

2018B



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		-20	V
Collector-to-Emitter Voltage	VCEO		-15	V
Emitter-to-Base Voltage	VEBO		-5	V
Collector Current	Ic		-0.8	Α
Collector Current (Pulse)	I _{CP}		-2	Α
Collector Dissipation	PC		200	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

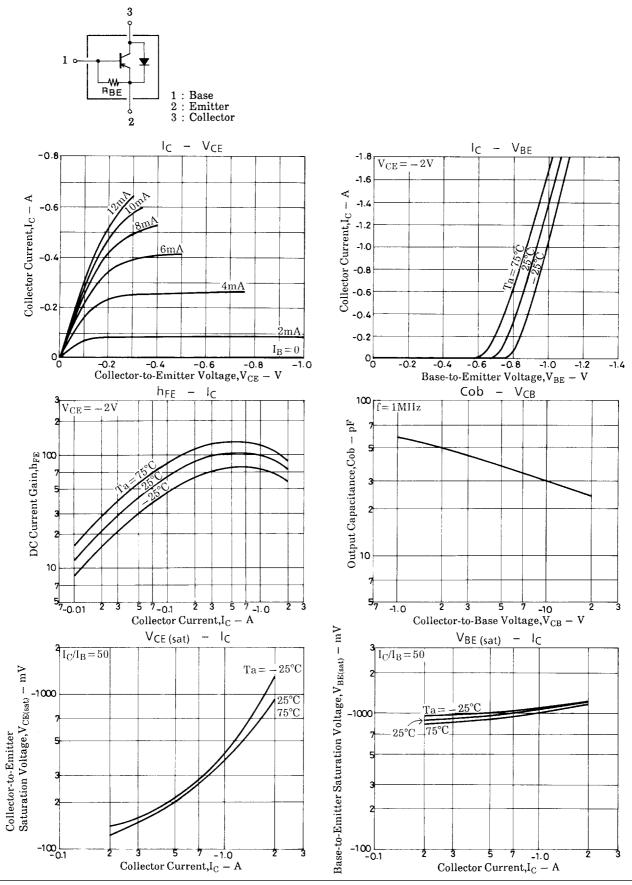
Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	Offic
Collector Cutoff Current	I _{CBO}	V _{CB} =-15V, I _E =0			-1.0	μA
DC Current Gain	hFE	V _{CE} =-2V, I _C =-0.5A	70			
Gain-Bandwidth Product	fT	V _{CE} =-2V, I _C =-0.5A		250		MHz
Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz		30		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-500mA, I _B =-10mA		-0.2	-0.4	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-500mA, I _B =-10mA		-0.95	-1.3	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =-10μΑ, I _E =0	-20			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =-10mA, R _{BE} =∞	-15			V

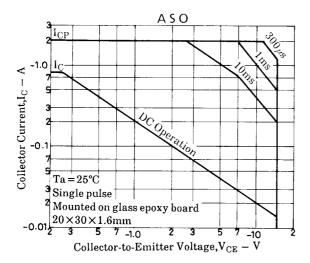
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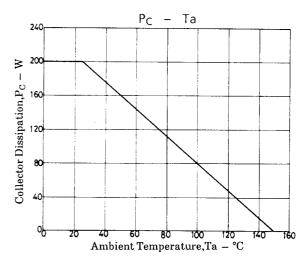
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Diode Forward Voltage	٧F	I _F =-0.5A			-1.5	V
Base-to-Emitter Resistance	R _{BE}			1.0		kΩ

Electrical Connection







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