

2SB986/2SD1348

50V/4A Switching Applications

Applications

· Power supplies, relay drivers, lamp drivers, electrical equipment.

Features

- · Adoption of FBET and MBIT processes.
- · Low saturation voltage.
- · High current capacity and wide ASO.

():2SB986

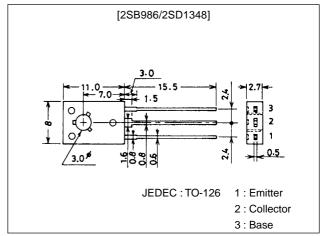
Specifications

Absolute Maximum Ratings at Ta = 25°C

Package Dimensions

unit:mm

2009B



Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		(-)60	V
Collector-to-Emitter Voltage	V _{CEO}		(-)50	V
Emitter-to-Base Voltage	V _{EBO}		(–)6	V
Collector Current	lС		(-)4	Α
Collector Current (Pulse)	I _{CP}		(-)6	Α
Collector Dissipation	PC		1.2	W
		Tc=25°C	10	W
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} =(-)40V, I _E =0			(–)1.0	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)4V, I _C =0			(–)1.0	mA
DC Current Gain	h _{FE} 1	V _{CE} =(-)2V, I _C =(-)100mA	100*		560*	
	h _{FE} 2	V _{CE} =(-)2V, I _C =(-)3A	40			
Gain-Bandwidth Product	f _T	V _{CE} =(-)10V, I _C =(-)50mA		150		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)10V		25(39)		pF

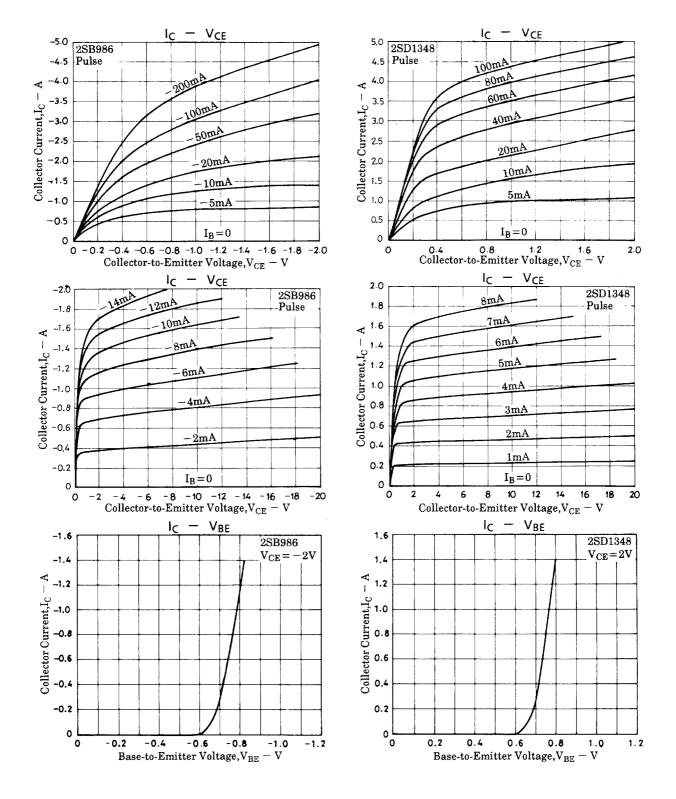
^{*:} The 2SB986/2SD1348 are classified by 100mA h_{FE} as follows:

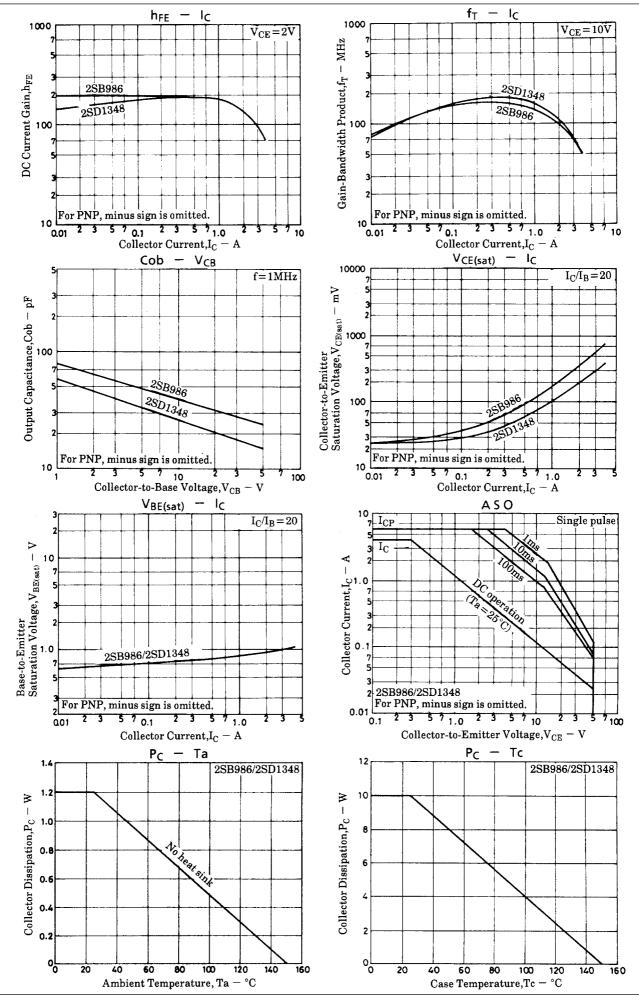
100 R 200 140 S 280 200 T 400 280 U 560

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Oilit
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)2A, I _B =(-)100mA, Pulse		0.19	0.5	V
				(-0.35)	(-0.7)	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)2A, I _B =(-)100mA, Pulse		(-)0.94	(–)1.2	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =(-)10μA, I _E =0	(–)60			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =(-)1mA, R _{BE} =∞	(–)50			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =(-)10μΑ I _C =0	(–)6			V





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