

Driver Applications

Applications

· Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

Features

- · High DC current gain.
- · Large current capcity and wide ASO.
- · Micaless pakcage facilitating mounting.

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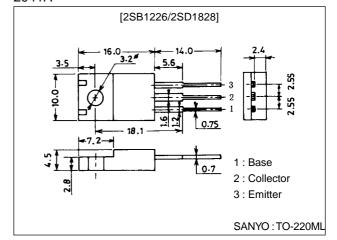
Specifications

Absolute Maximum Ratings at Ta = 25°C

Package Dimensions

unit:mm

2041A



Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CBO}		(–)110	V
Collector-to-Emitter Voltage	V _{CEO}		(-)100	V
Emitter-to-Base Voltage	V _{EBO}		(–)6	V
Collector Current	IC		(–)3	Α
Collector Current (Pulse)	ICP		(–)5	Α
Collector Dissipation	PC		2.0	W
		Tc=25°C	20	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

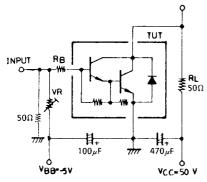
Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	Offic
Collector Cutoff Current	ICBO	V _{CB} =(-)80V, I _E =0			(-)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)5V, I _C =0			(-)3.0	mA
DC Current Gain	h _{FE}	V _{CE} =(-)3V, I _C =(-)1.5A	1500	4000		
Gain-Bandwidth Product	f _T	V _{CE} =(-)5V, I _C =(-)1.5A		20		MHz
Collector-to-Emitter Saturation Voltage	VCE(sat)	I _C =(-)1.5A, I _B =(-)3mA		0.9	(-)1.5	V
				(-1.0)		V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)1.5A, I _B =(-)3mA			(-)2.0	V

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Uill
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =(-)5mA, I _E =0	(–)110			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =(–)50mA, R _{BE} =∞	(–)100			V
Turn-ON Time	ton	See specified Test Circuit		0.8		μs
				(0.7)		μs
Storage Time	t _{stg}	See specified Test Circuit		5.0		μs
				(2.4)		μs
Fall Time	t _f	See specified Test Circuit		1.2		μs
				(1.2)		μs

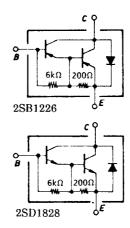
Switching Time Test Circuit

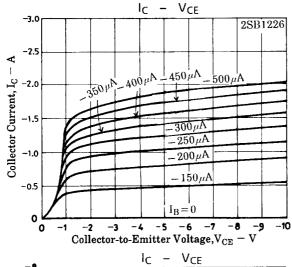
 $PW = 50 \mu s$, Duty Cycle $\leq 1\%$ $500I_B1 = -500I_B2 = I_C = 1A$

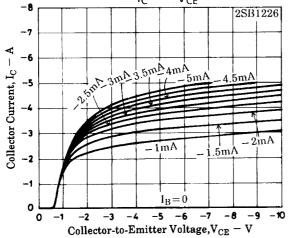


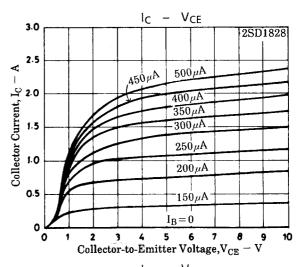
(For PNP, the polarity is reversed.)

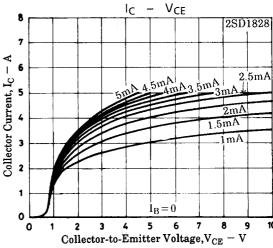
Electrical Connection

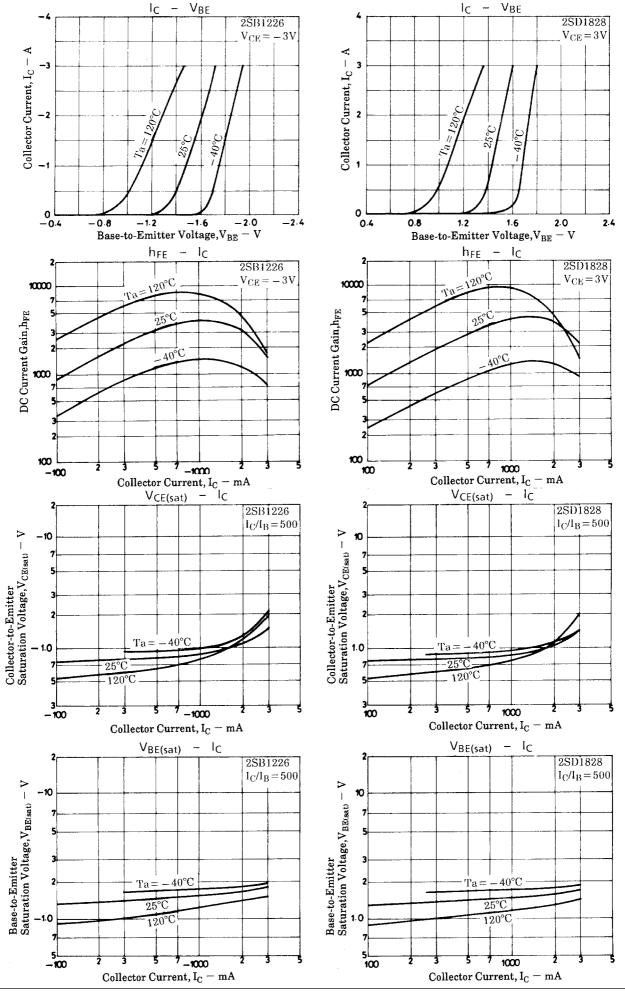


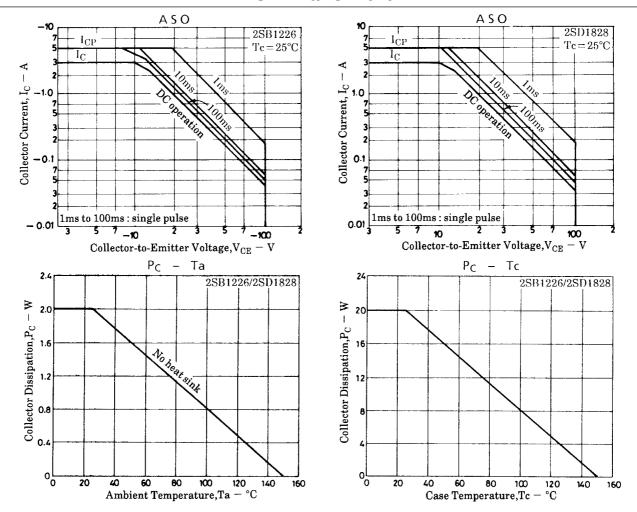












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