

Driver Applications

Applications

 Suitable for use in control of motor drivers, printer hammer drivers, relay drivers, and constant-voltage regulators.

Features

- · High DC current gain.
- · Large current capacity and wide ASO.
- · Micaless package facilitaing mounting.

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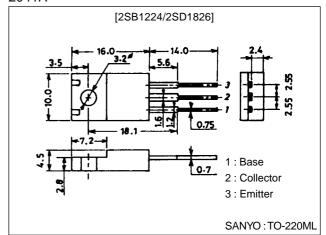
Specifications

Absolute Maximum Ratings at Ta = 25°C

Package Dimensions

unit:mm

2041A



Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	VCBO		(–)70	V
Collector-to-Emitter Voltage	VCEO		(-)60	V
Emitter-to-Base Voltage	V _{EBO}		(–)6	V
Collector Current	IC		(-)7	Α
Collector Current (Pulse)	ICP		(–)10	А
Collector Dissipation	PC		2.0	W
		Tc=25°C	25	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

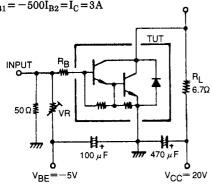
Parameter	Symbol	Conditions		Ratings		
	Syllibol		min	typ	max	Unit
Collector Cutoff Current	I _{CBO}	V _{CB} =(-)40V, I _E =0			(–)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)5V, I _C =0			(-)3.0	mA
DC Current Gain	h _{FE}	V _{CE} =(-)2V, I _C =(-)3.5A	2000	5000		
Gain-Bandwidth Product	fT	V _{CE} =(-)5V, I _C =(-)3.5A		20		MHz
Collector-to-Emitter Saturation Voltage	VCE(sat)	I _C =(-)3.5A, I _B =(-)7mA		0.9	(–)1.5	V
				(-1.0)		V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)3.5A, I _B =(-)7mA			(-)2.0	V

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	1 Onit
Collector-to-Base Breakdown Voltage	V(BR)CBO	I _C =(-)5mA, I _E =0	(–)70			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =(–)50mA, R _{BE} =∞	(–)60			V
Turn-ON Time	ton	See specified Test Circuit		0.6		μs
				(0.5)		μs
Storage Time	tstg	See specified Test Circuit		3.0		μs
				(1.5)		μs
Fall Time	t _f	See specified Test Circuit		1.7		μs
				(1.4)		μs

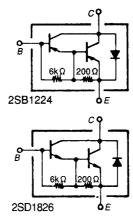
Switching Time Test Circuit

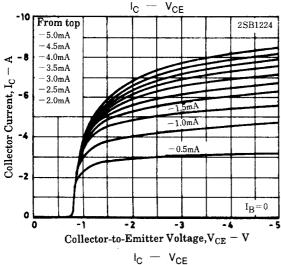
$PW = 50\mu s$, Duty cycle $\le 1\%$ $500I_{B1} = -500I_{B2} = I_C = 3A$

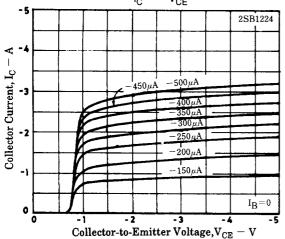


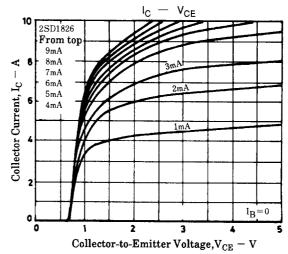
(For PNP, the polarity is reversed.)

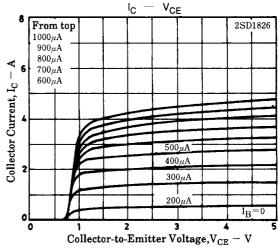
Electrical Connection

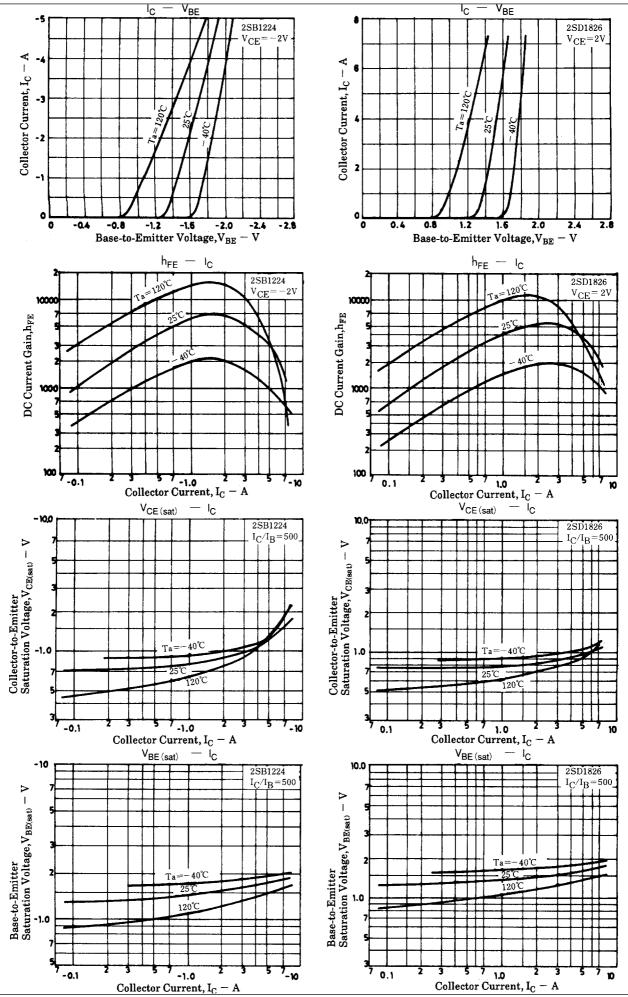


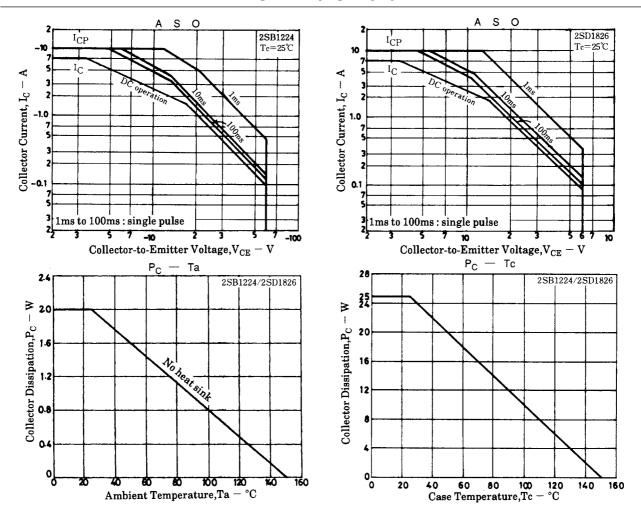












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