

50V/5A Switching Applications

Applications

· Relay drivers, high-speed inverters, and other general high-current switching applications.

Features

- \cdot Low-saturation collector-to-emitter voltage : VCE(sat)=-0.4V max/IC=(-)3A, IB=(-)0.3A.
- · Micaless package facilitating mounting.

(): 2SB1134

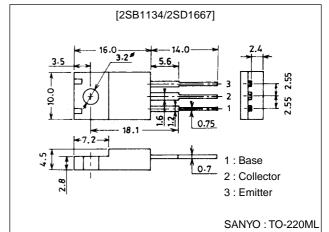
Specifications

Absolute Maximum Ratings at Ta = 25°C

Package Dimensions

unit:mm

2041A



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	IC		(-)5	Α
Collector Current (Pulse)	I _{CP}		(-)9	Α
Collector Dissipation	PC		2	W
		Mounted on ceramic board (250mm²×0.8mm)	25	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Collector Cutoff Current	ICBO	V _{CB} =(-)40V, I _E =0			(-)0.1	mA
Emitter Cutoff Current	I _{EBO}	V _{EB} =(-)4V, I _C =0			(-)0.1	mA
DC Current Gain	h _{FE} 1	V _{CE} =(-)2V, I _C =(-)1A	70*		280*	
	h _{FE} 2	V _{CE} =(-)2V, I _C =(-)3A	30			
Gain-Bandwidth Product	fT	V _{CE} =(-)5V, I _C =(-)1A		30		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)10V, f=1MHz		100		pF
				(160)		pF

 $[\]overline{*}$: The 2SB1134/2SD1667 are classified by 1A h_{FE} as follows:

Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious

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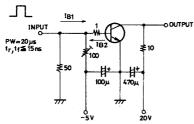
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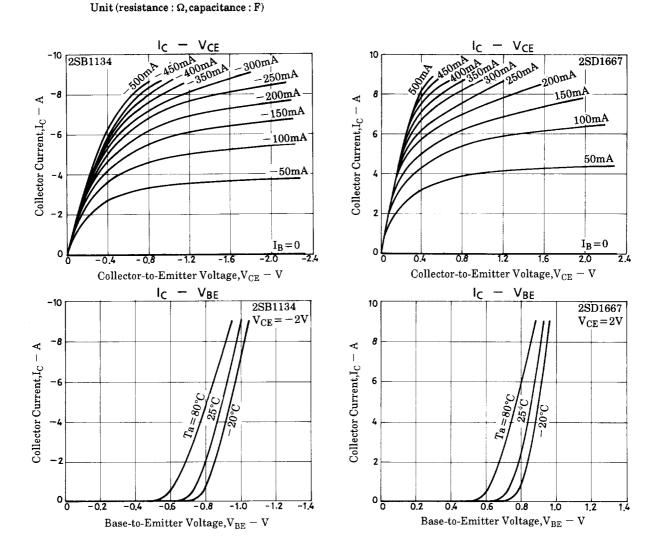
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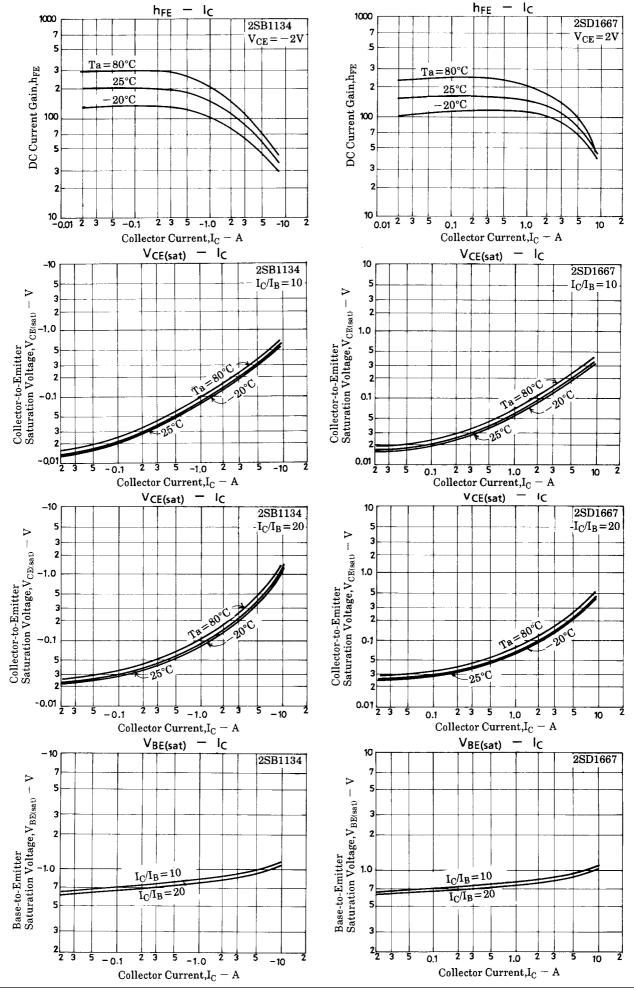
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Uill
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)3A, I _B =(-)0.3A			(-)0.4	V
Collector-to-Base Breakdown Voltage	V _(BR) CBO	I _C =(-)1mA, I _E =0	(–)60			V
Collector-to-Emitter Breakdown Voltage	V _(BR) CEO	I _C =(-)1mA, R _{BE} =∞	(–)50			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =(-)1mA, I _C =0	(–)6			V
Rise Time	ton	See specified Test Circuti.		0.1		μs
Storage Time	t _{stg}	See specified Test Circuit.		(0.7)		μs
				1.4		μs
Fall Time	t _f	See specified Test Circuit.		0.2		μs

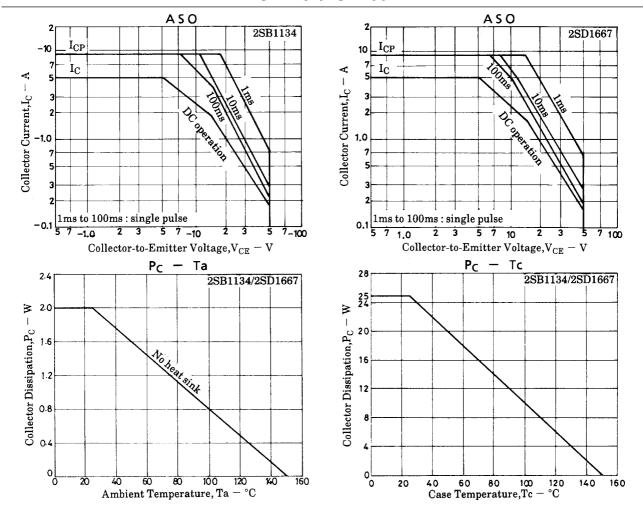
Switching Time Test Circuit



 $10I_{B1} = -10I_{B2} = I_C = 2A$ (For PNP, the polarity is reversed.)







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