



2SA2031 / 2SC5669

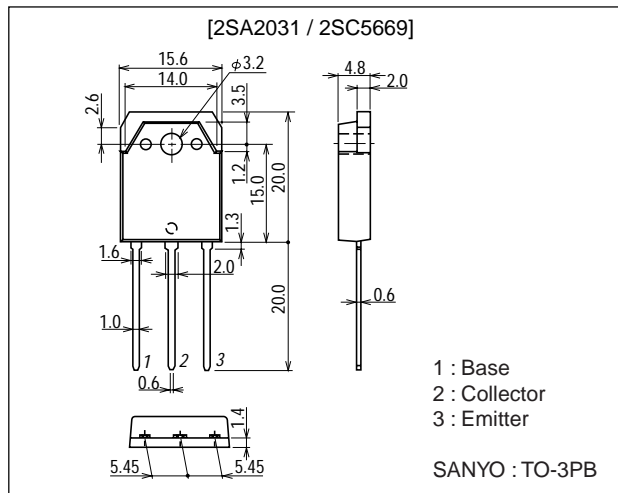
230V / 15A, AF100W Output Applications

Features

- Large current capacitance.
- Wide ASO and high durability against breakdown.
- Adoption of MBIT process.

Package Dimensions

unit : mm
2022A



Specifications

Note*() : 2SA2031

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{CB0}		(-)250	V
Collector-to-Emitter Voltage	V _{CEO}		(-)230	V
Emitter-to-Base Voltage	V _{EB0}		(-)6	V
Collector Current	I _C		(-)15	A
Collector Current (Pulse)	I _{CP}		(-)30	A
Collector Dissipation	P _C		2.5	W
		T _c =25°C	140	W
Junction Temperature	T _J		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I _{CB0}	V _{CB} =(-)250V, I _E =0			(-)0.1	mA
Emitter Cutoff Current	I _{EB0}	V _{EB} =(-)4V, I _C =0			(-)0.1	mA
DC Current Gain	h _{FE} (1)	V _{CE} =(-)5V, I _C =(-)1A	60		160	
	h _{FE} (2)	V _{CE} =(-)5V, I _C =(-)7.5A	35			

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■ 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 physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

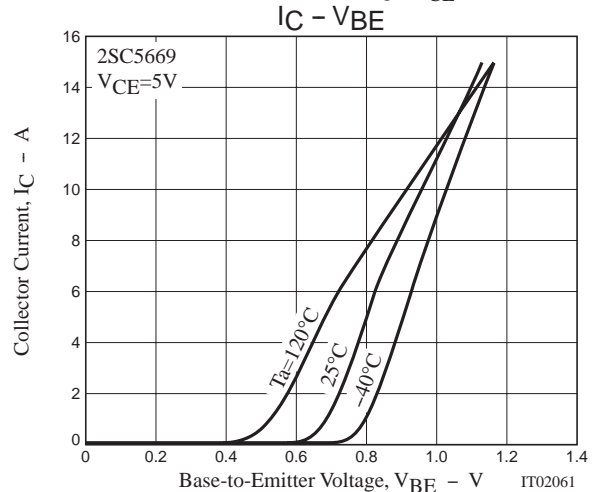
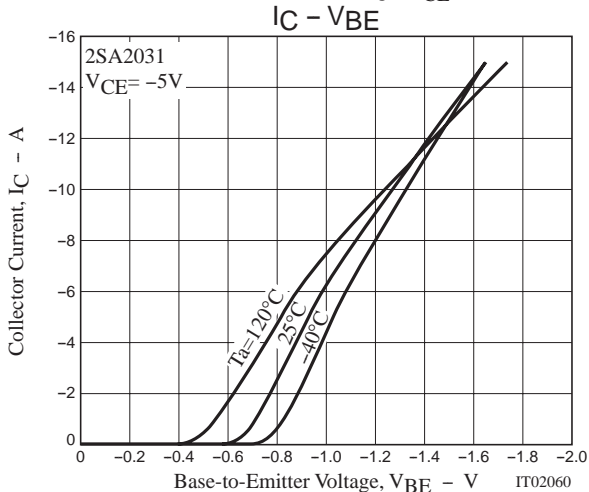
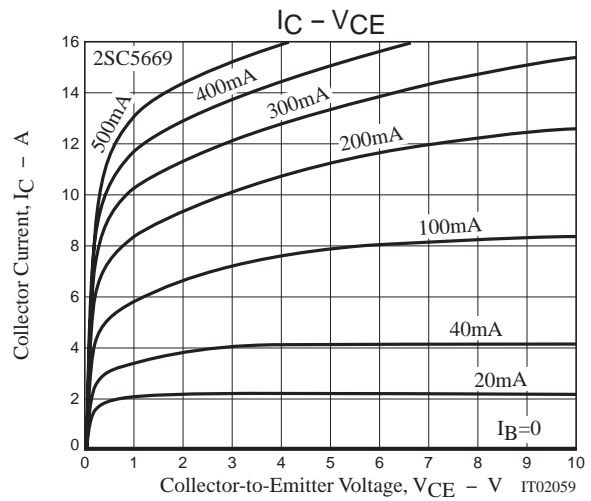
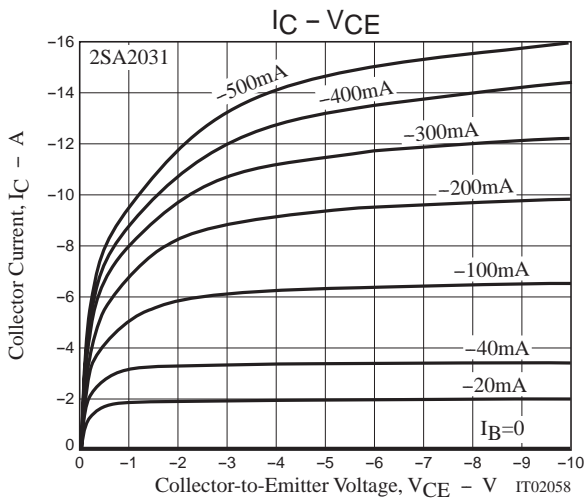
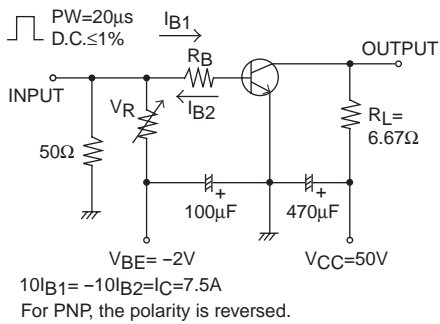
■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	$V_{CE}=(-)5V, I_C=(-)1A$		(10)15		MHz
Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		(400)200		pF
Base-to-Emitter Voltage	V_{BE}	$V_{CE}=(-)5V, I_C=(-)7.5A$			1.5	V
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)7.5A, I_B=(-)0.75A$		(-0.3)0.2	(-)-2.0	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)5mA, I_E=0$	(-)-250			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)50mA, R_{BE}=\infty$	(-)-230			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)5mA, I_C=0$	(-)-6			V
Turn-On Time	t_{on}	See specified test circuit.		(0.45)0.56		μs
Storage Time	t_{stg}	See specified test circuit.		(1.75)3.3		μs
Fall Time	t_f	See specified test circuit.		(0.25)0.4		μs

Switching Time Test Circuit



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