

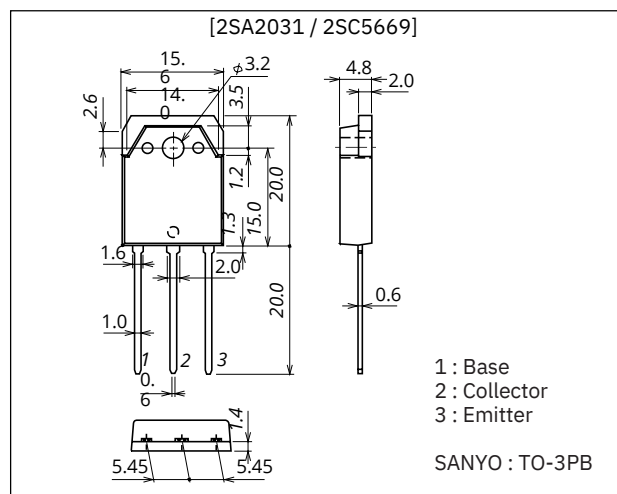
2SA2031 / 2SC5669PNP Epitaxial Planar Silicon Transistor
NPN Triple Diffused Planar Silicon Transistor**2SA2031 / 2SC5669****230V / 15A, AF100W Output Applications****Features**

- 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	VCBO		(-)250	V
Collector-to-Emitter Voltage	VCEO		(-)230	V
Emitter-to-Base Voltage	VEBO		-)6	V
Collector Current	IC		-)15	A
Collector Current (Pulse)	ICP		030	A
Collector Dissipation	PC		2.5	W
Junction Temperature	Tj	Tc=25°C	140	°C
Storage Temperature	Tstg		150	°C
			-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	ICBO	VCB=(-)250V, IE=0			(-)0.1	mA
Emitter Cutoff Current	IEBO	VEB=(-)4V, IC=0			(-)0.1	mA
DC Current Gain	hFE(1)	VCE=(-)5V, IC=(-)1A	6		160	
	hFE(2)	VCE=(-)5V, IC=(-)7.5A	0			

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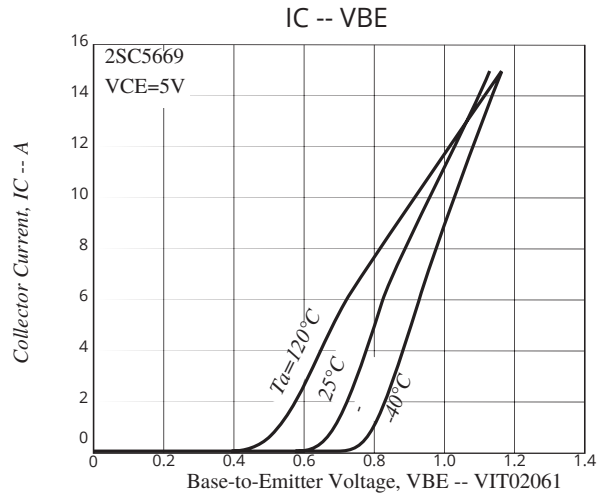
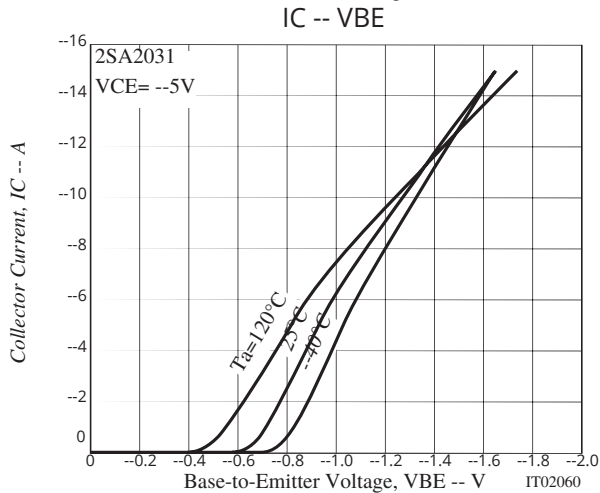
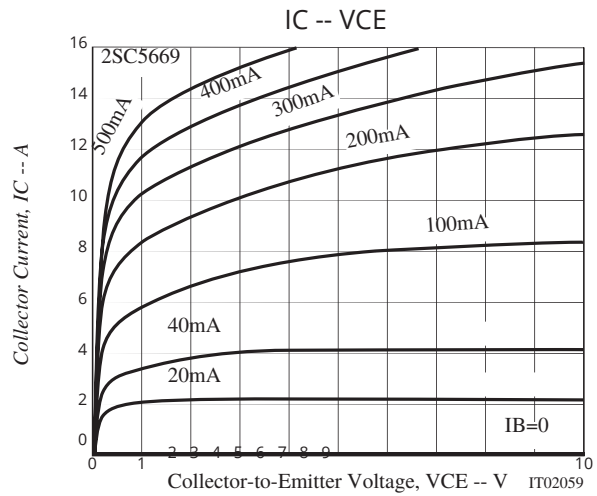
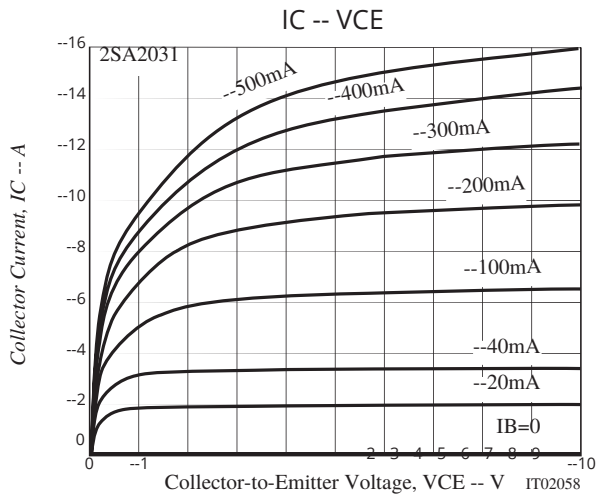
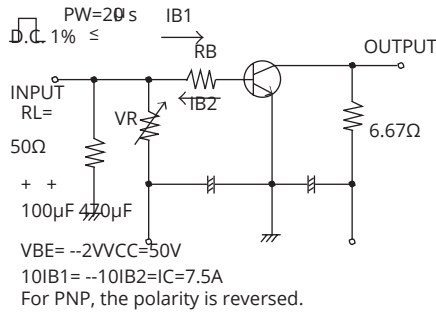
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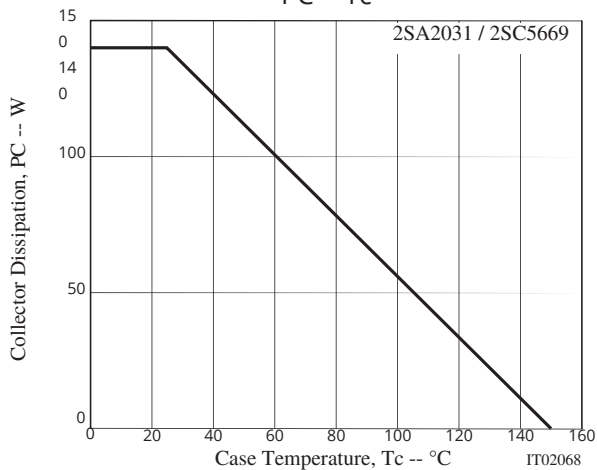
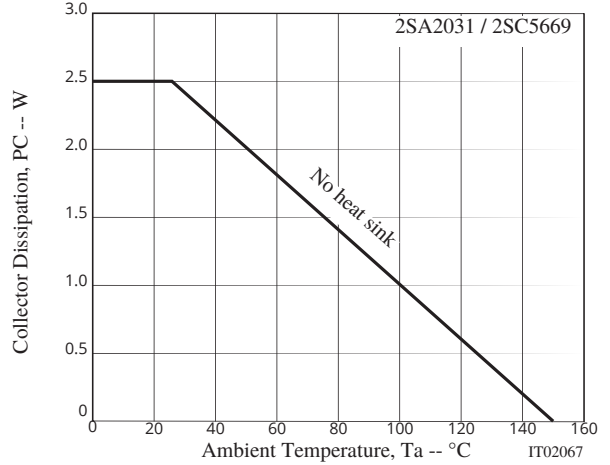
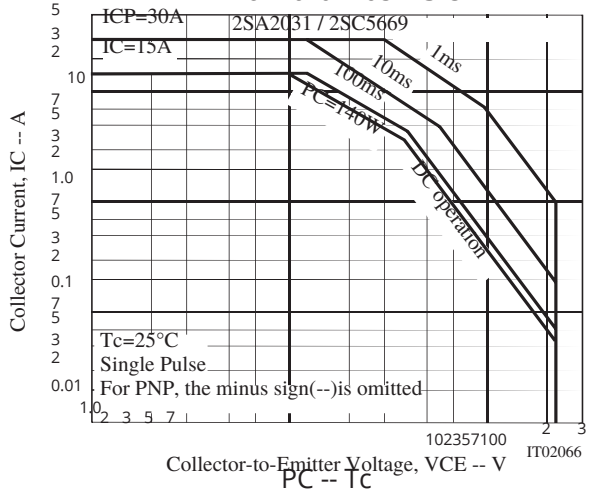
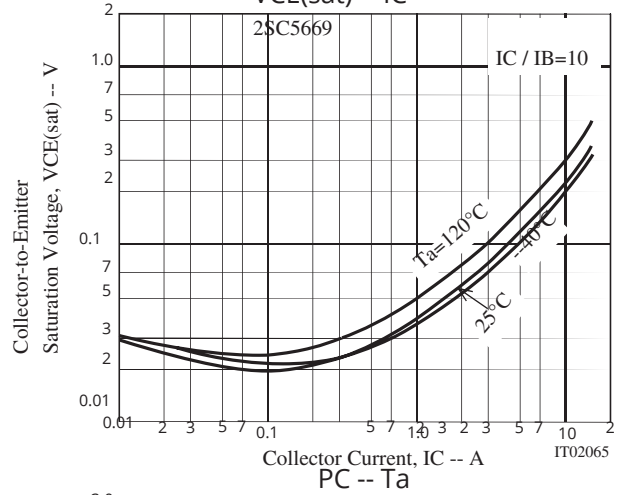
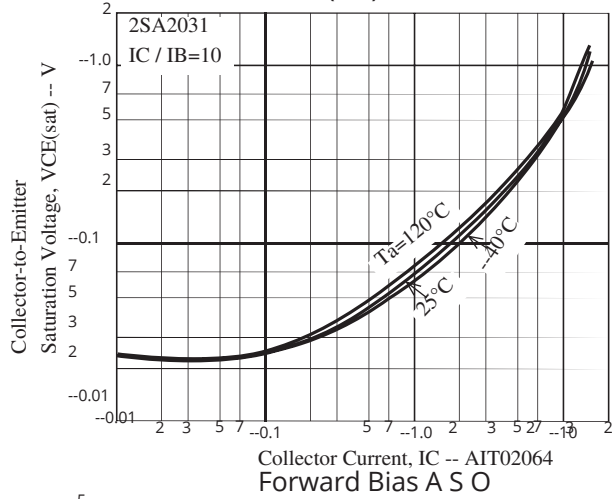
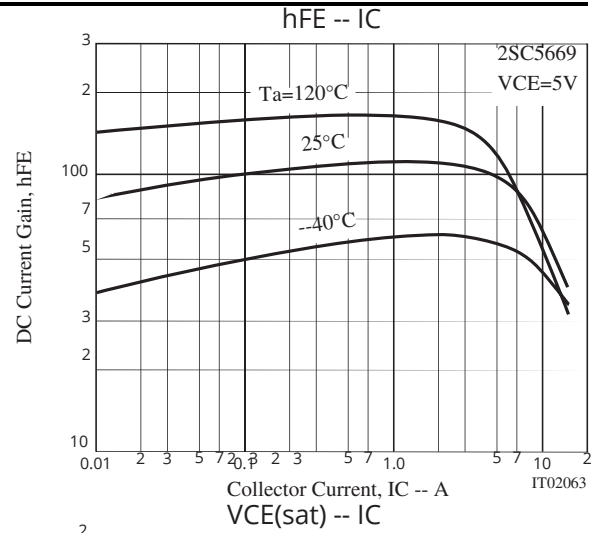
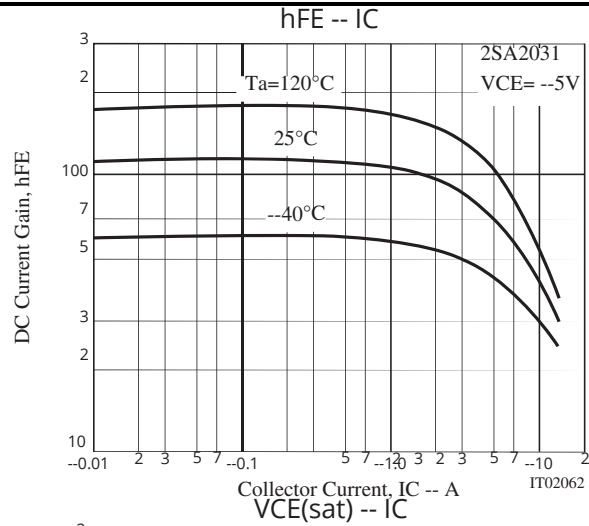
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	fT	VCE=--5V, IC=--1A		(10)15		MHz
Output Capacitance	Cob	VCB=--10V, f=1MHz		(400)200		pF
Base-to-Emitter Voltage	VBE	VCE=--5V, IC=--7.5A			1.5	V
Collector-to-Emitter Saturation Voltage	VCE(sat)	IC=--7.5A, IB=--0.75A		(--0.3)0.2	(--2.0)	V
Collector-to-Base Breakdown Voltage	V(BR)CBO	IC=--5mA, IE=0	(--250)			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	IC=--50mA, RBE=∞	(--230)			V
Emitter-to-Base Breakdown Voltage	V(BR)EBO	IE=--5mA, IC=0	(--6)			V
Turn-On Time	ton	See specified test circuit.		(0.45)0.5		μs
Storage Time	tstg	See specified test circuit.		6		μs
Fall Time	tf	See specified test circuit.		(1.75)3.3		μs
				(0.25)0.4		

Swicthng Time Test Circuit



2SA2031 / 2SC5669



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