查询2SA1827供应商 捷多邦，专业PCB打样工厂，24小时加急出货

Ordering number:ENN3879A

PNP/NPN Epitaxial Planar Silicon Transistors

2SA1827/2SC4731

100V/4A Switching Applications

Applications

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

Features

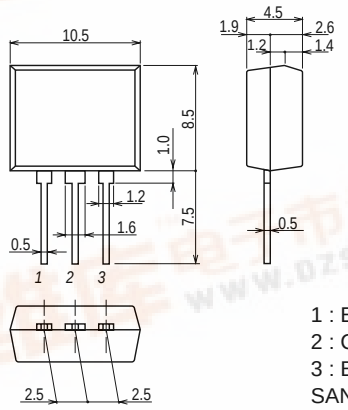
· Low collector-to-emitter saturation voltage.
· High Gain-Bandwidth Product.
· Excellent linearity of DC Current Gain.
· Fast switching speed.

Package Dimensions

unit:mm

2084B

[2SA1827/2SC4731]



1 : Emitter
2 : Collector
3 : Base
SANYO : FLP

Specifications

( ) : 2SA1827

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(–)120	V
Collector-to-Emitter Voltage	V_{CEO}		(–)100	V
Emitter-to-Base Voltage	V_{EBO}		(–)6	V
Collector Current	I_C		(–)4	A
Collector Current (Pulse)	I_{CP}		(–)8	A
Base Current	I_B		(–)0.8	A
Collector Dissipation	P_C		1.5	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	
Collector Cutoff Current	I_{CBO}	V_{CB}=(–)100V, I_E=0			(–)1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=(–)4V, I_C=0			(–)1	μA
DC Current Gain	$h_{FE}1$	V_{CE}=(–)5V, I_C=(–)500mA	100*		400*	
	$h_{FE}2$	V_{CE}=(–)5V, I_C=(–)3A	40			

* : The 2SA1827/2SC4731 are classified by 500mA h_{FE} as follows :

Continued on next page.

Rank	R	S	T
h_{FE}	100 to 200	140 to 280	200 to 400

■ 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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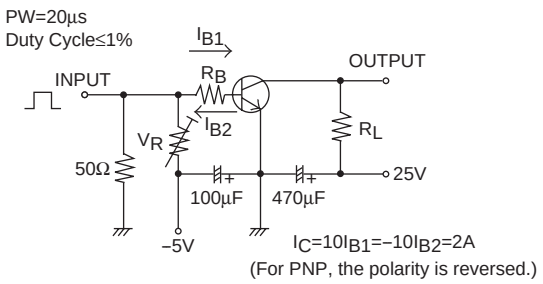
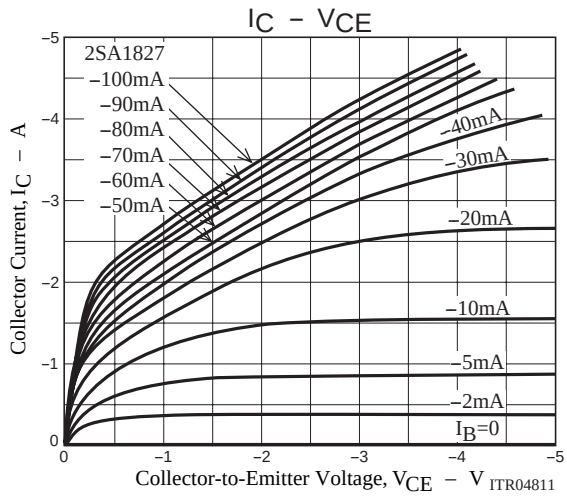
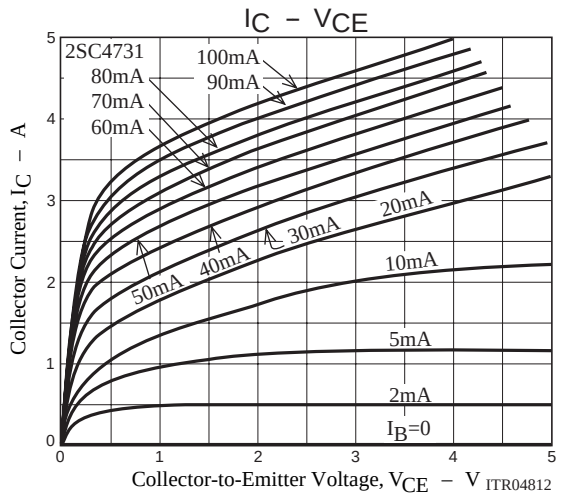
Continued from preceding page.

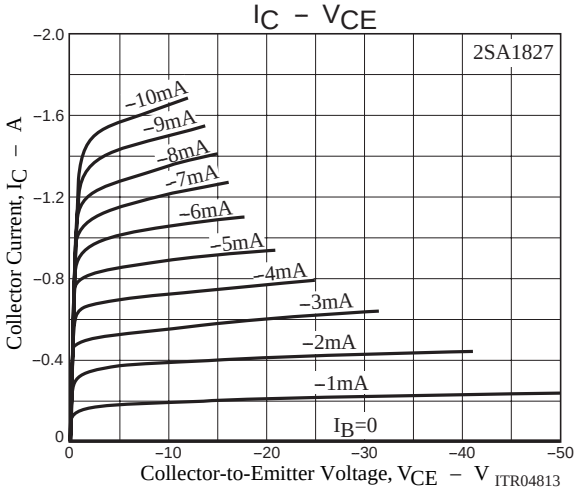
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gain-Bandwidth Product	f_T	V_{CE}=(–)10V, I_C=(–)500mA		(130)		MHz
				180		MHz
Output Capacitance	C_{ob}	V_{CB}=(–)10V, f=1MHz		(65)40		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=(–)2A, I_B=(–)0.2A		(–200)	(–500)	mV
				150	400	mV
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=(–)2A, I_B=(–)0.2A		(–)0.9	(–)1.2	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=(–)10μA, I_E=0	(–)120			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=(–)1mA, R_{BE}=∞	(–)100			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=(–)10μA, I_C=0	(–)6			V
Turn-ON Time	t_{on}	See specified Test Circuit		100		ns
Storage Time	t_{stg}	See specified Test CIrcuit		(800)		ns
				900		ns
Fall Time	t_f	See specified Test Circuit		50		ns

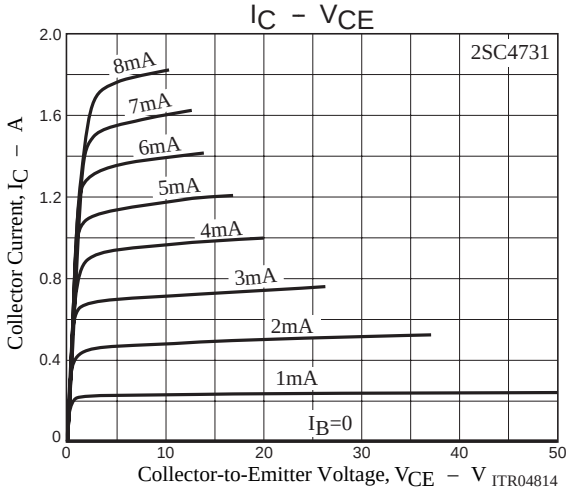
Switching Time Test Circuit

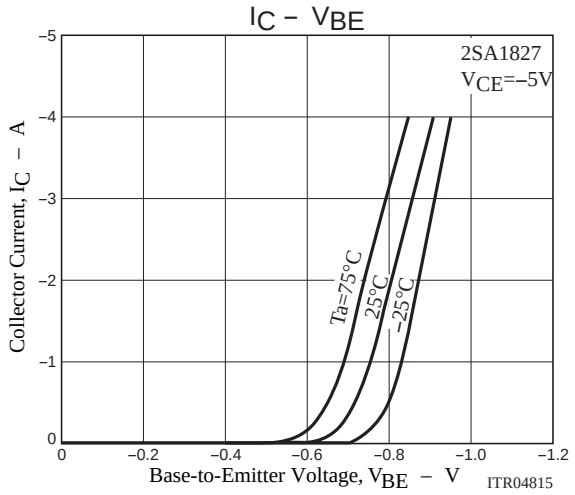


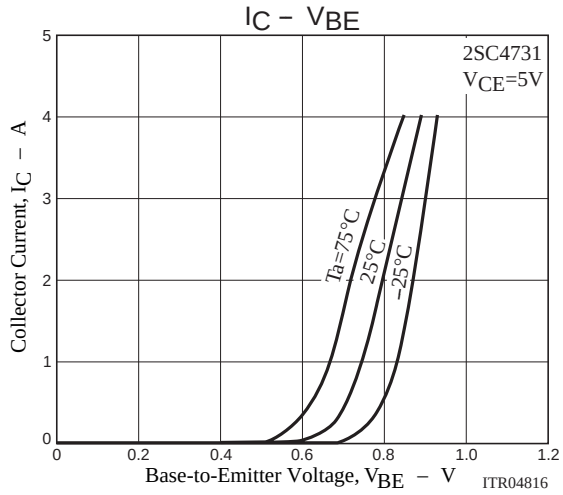


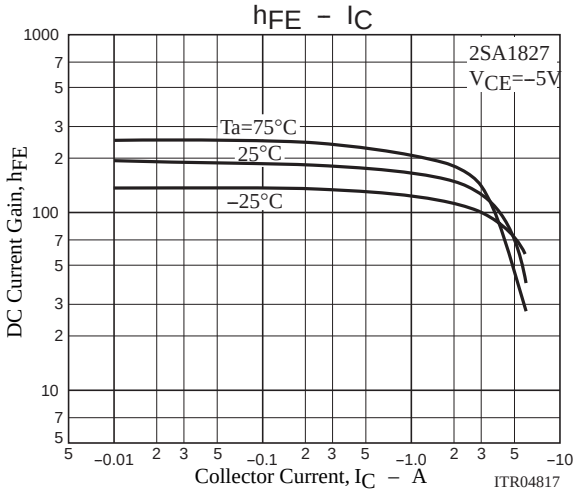


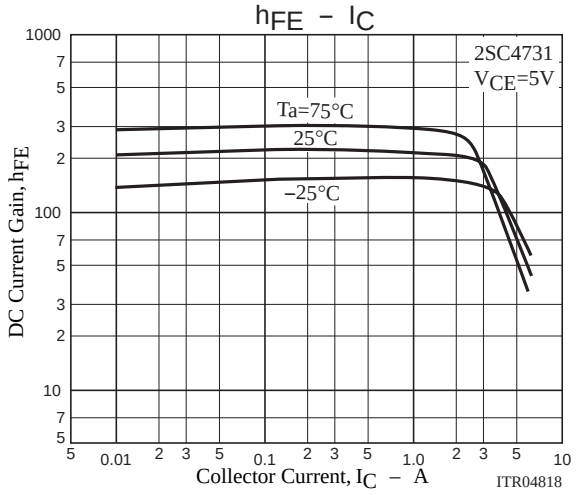


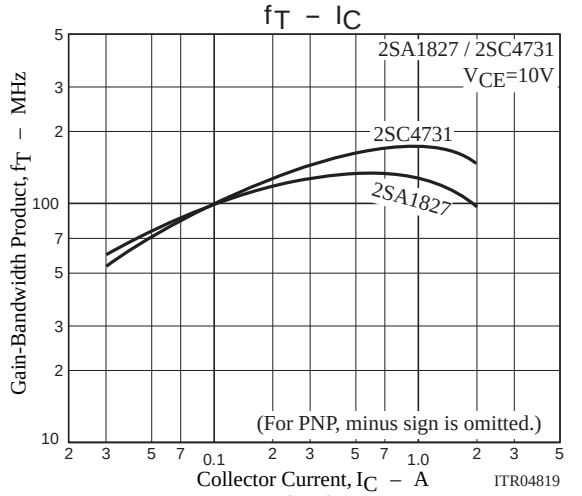


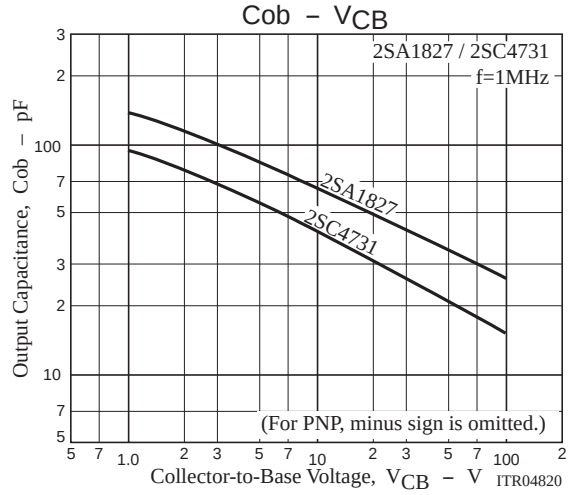

IC − VBE
2SA1827
VCE=−5V
Ta=75°C
25°C
−25°C
Collector Current, IC − A
Base-to-Emitter Voltage, VBE − V
ITR04815

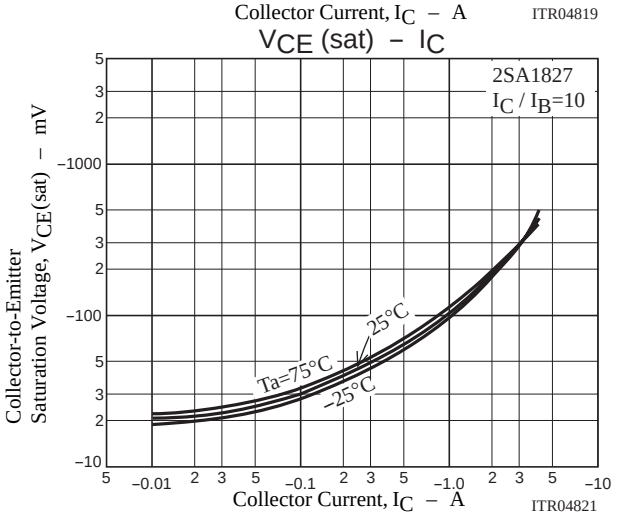

IC − VBE
2SC4731
VCE=5V
Ta=75°C
25°C
−25°C
Collector Current, IC − A
Base-to-Emitter Voltage, VBE − V
ITR04816

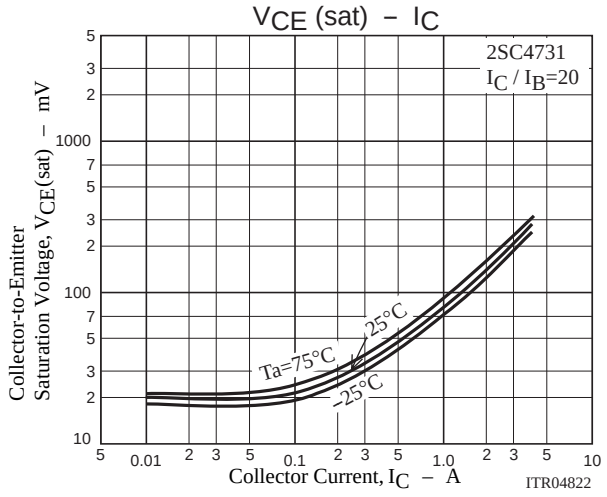

hFE − IC
2SA1827
VCE=−5V
Ta=75°C
25°C
−25°C
DC Current Gain, hFE
Collector Current, IC − A
ITR04817

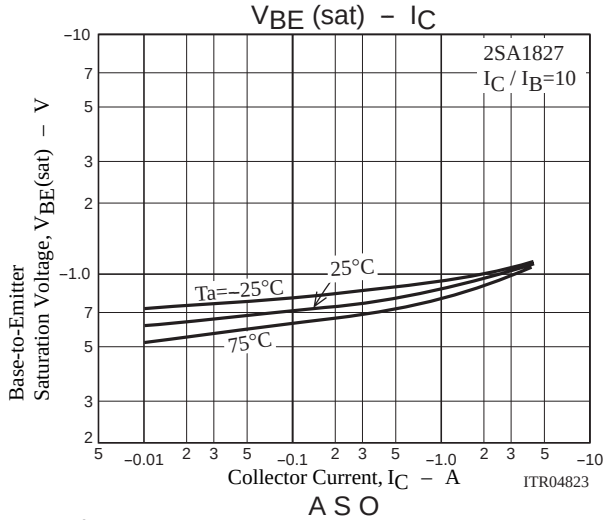

hFE − IC
2SC4731
VCE=5V
Ta=75°C
25°C
−25°C
DC Current Gain, hFE
Collector Current, IC − A
ITR04818

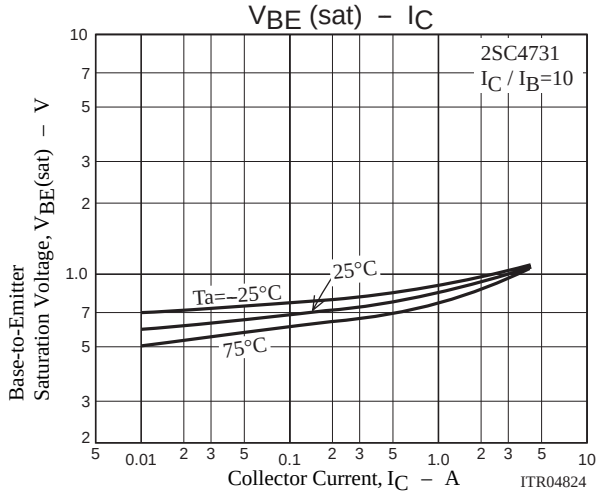

fT − IC
2SA1827 / 2SC4731
VCE=10V
2SC4731
2SA1827
(For PNP, minus sign is omitted.)
Gain-Bandwidth Product, fT − MHz
Collector Current, IC − A
ITR04819

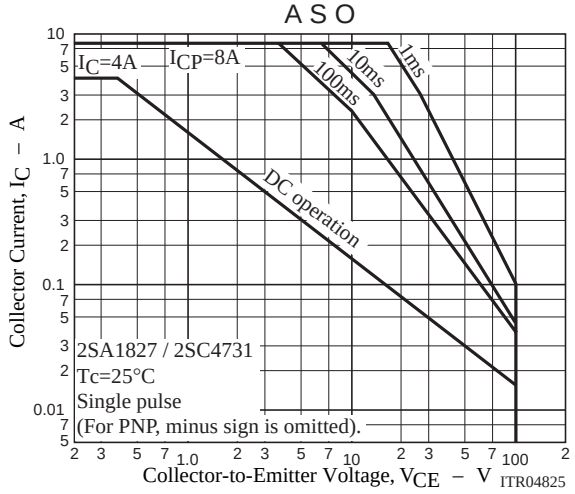

Cob − VCB
2SA1827 / 2SC4731
f=1MHz
2SA1827
2SC4731
(For PNP, minus sign is omitted.)
Output Capacitance, Cob − pF
Collector-to-Base Voltage, VCB − V
ITR04820

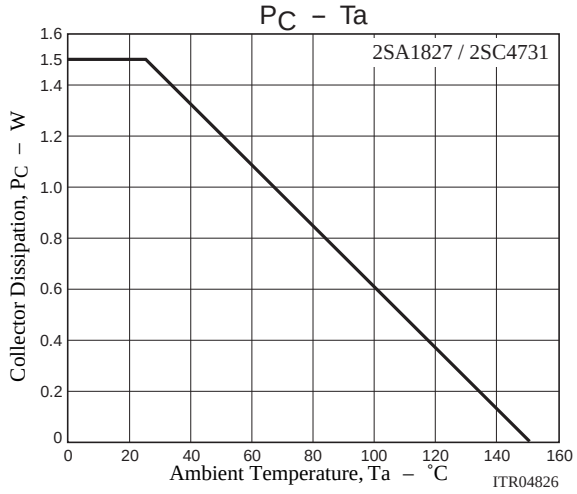

VCE (sat) − IC
2SA1827
IC / IB=10
Ta=75°C
25°C
−25°C
Collector-to-Emitter Saturation Voltage, VCE(sat) − mV
Collector Current, IC − A
ITR04821


VCE (sat) − IC
2SC4731
IC / IB=20
Ta=75°C
25°C
−25°C
Collector-to-Emitter Saturation Voltage, VCE(sat) − mV
Collector Current, IC − A
ITR04822









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