

SANYO	No.3132	2SA1728
	PNP Epitaxial Planar Silicon Transistor	
High-Speed Switching Applications		

Features

- Adoption of FBET process
- Low collector-to-emitter saturation voltage
- Fast switching speed
- Small-sized package

Absolute Maximum Ratings at Ta = 25°C

			unit
Collector to Base Voltage	V _{CB0}	-50	V
Collector to Emitter Voltage	V _{CE0}	-40	V
Emitter to Base Voltage	V _{EB0}	-5	V
Collector Current	I _C	-500	mA
Collector Current(Pulse)	I _{CP}	-1	A
Collector Dissipation	P _C	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
Collector Cutoff Current	I _{CB0}	V _{CB} = -40V, I _E = 0			-0.5	μA
Emitter Cutoff Current	I _{EB0}	V _{EB} = -3V, I _C = 0			-0.5	μA
DC Current Gain	h _{FE} (1)	V _{CE} = -2V, I _C = -50mA	70*		280*	
	h _{FE} (2)	V _{CE} = -2V, I _C = -500mA	25			
Gain-Bandwidth Product	f _T	V _{CE} = -2V, I _C = -50mA		350		MHz
Output Capacitance	c _{ob}	V _{CB} = -10V, f = 1MHz		6		pF
C-E Saturation Voltage	V _{CE(sat)}	I _C = -200mA, I _B = -10mA	-0.2		-0.5	V
B-E Saturation Voltage	V _{BE(sat)}	I _C = -200mA, I _B = -10mA	-0.8		-1.2	V
C-B Breakdown Voltage	V _{(BR)CBO}	I _C = -10μA, I _E = 0	-50			V
C-E Breakdown Voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} = ∞	-40			V
E-B Breakdown Voltage	V _{(BR)EBO}	I _E = -10μA, I _C = 0	-5			V
Turn-ON Time	t _{on}	See specified Test Circuit.		60	120	ns
Storage Time	t _{stg}	∞		120	220	ns
Turn-OFF Time	t _{off}	∞		170	320	ns

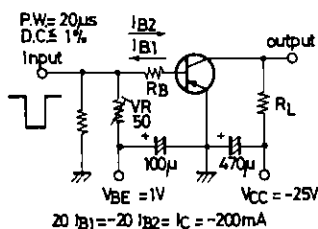
* : The 2SA1728 is classified by 50mA h_{FE} as follows :

70	3	140	100	4	200	140	5	280
----	---	-----	-----	---	-----	-----	---	-----

Marking : DS

h_{FE} rank : 3,4,5

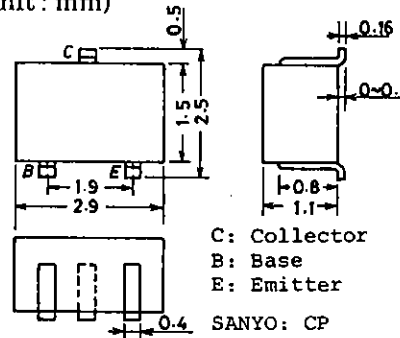
Switching Time Test Circuit

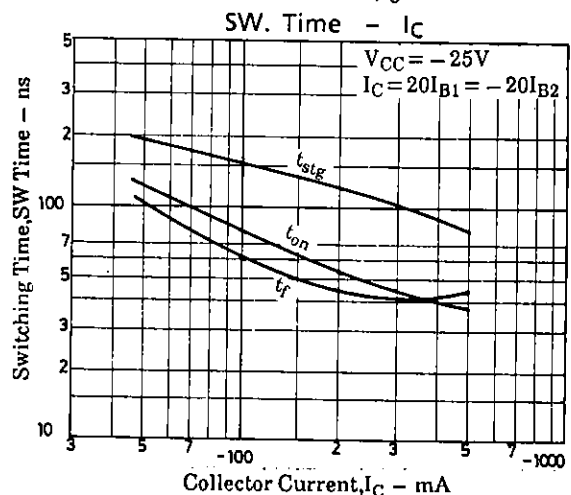
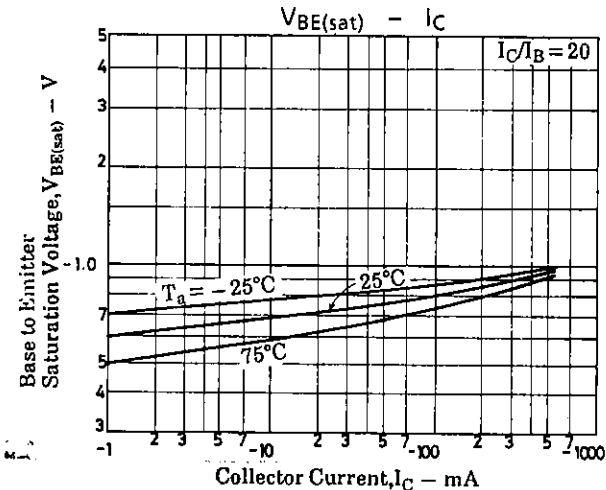
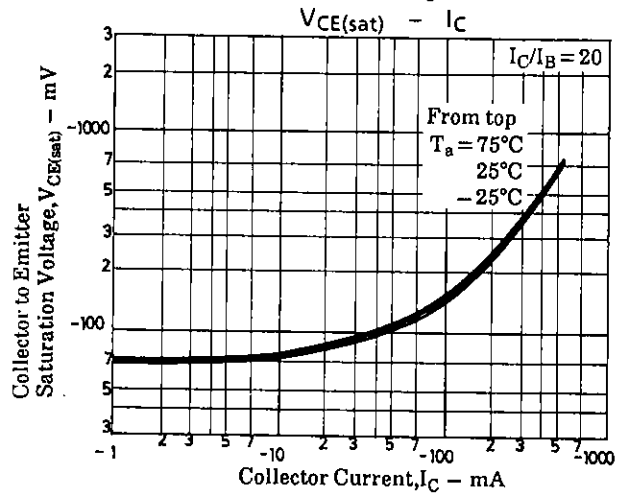
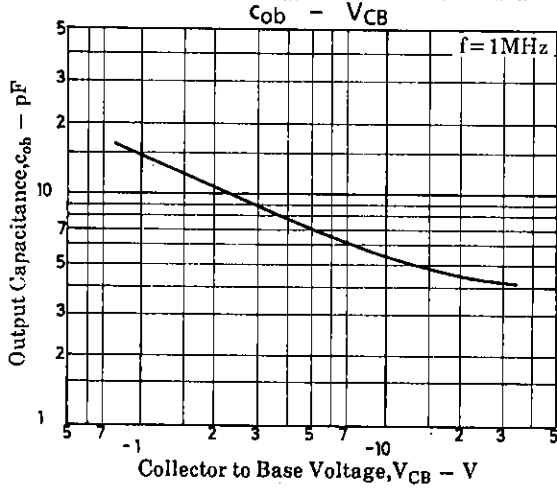
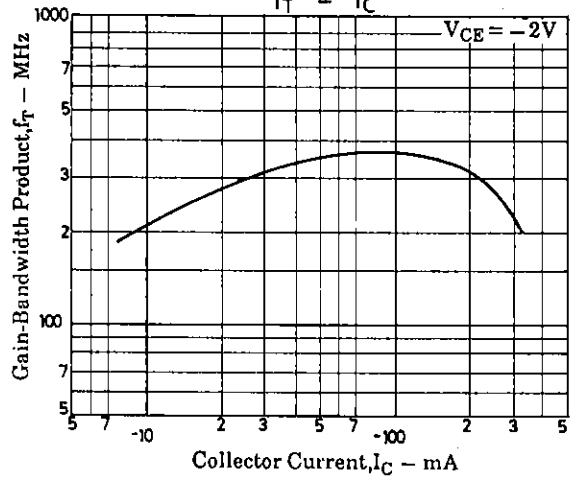
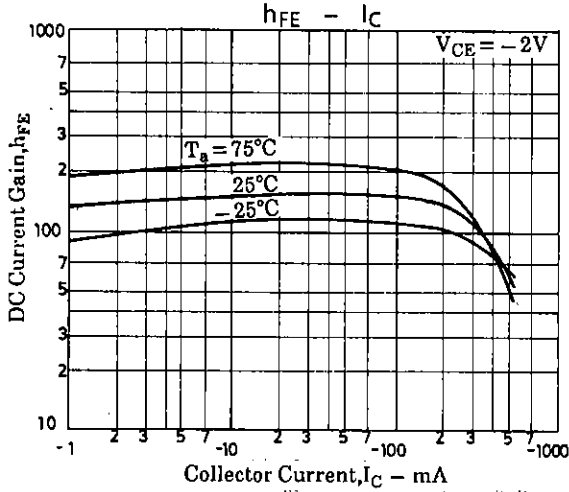
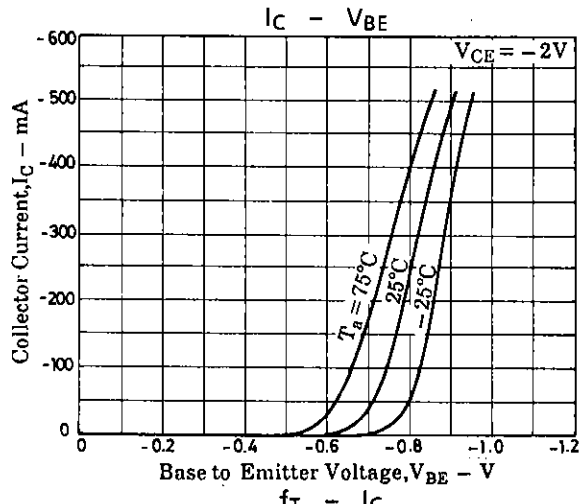
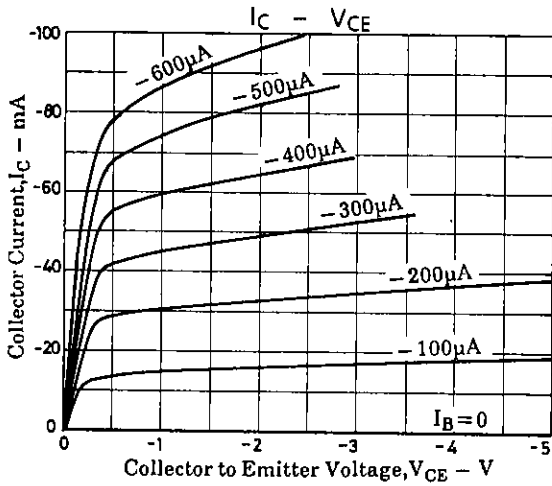


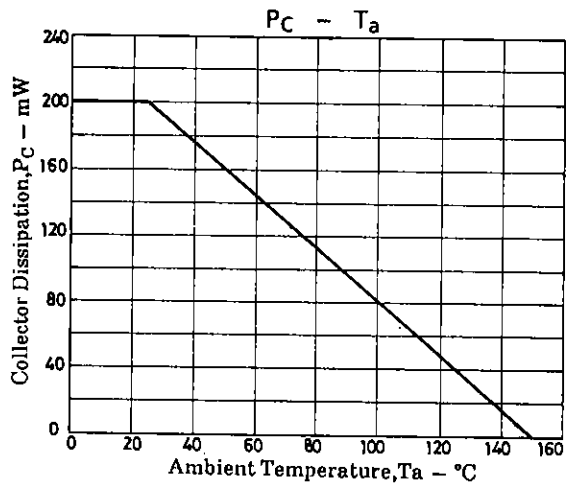
Unit (Resistance : Ω, Capacitance : F)

Package Dimensions 2018A

(unit : mm)







- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.