

SANYO

No.722G

2SB828/2SD1064

PNP/NPN Epitaxial Planar Silicon Transistors

50V/12A Switching Applications**Applications**

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

Features

- Low-saturation collector-to-emitter voltage : $V_{CE(sat)} = -0.5V$ (PNP), $0.4V$ (NPN) max.
- Wide ASO leading to high resistance to breakdown.

() : 2SB828

Absolute Maximum Ratings at $T_a = 25^\circ C$

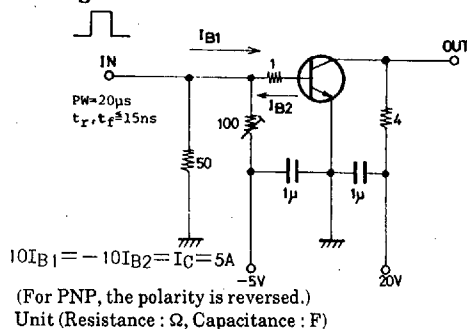
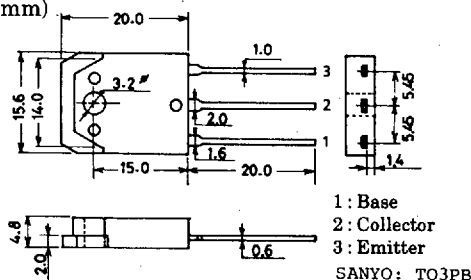
			unit
Collector-to-Base Voltage	V_{CBO}	(-)60	V
Collector-to-Emitter Voltage	V_{CEO}	(-)50	V
Emitter-to-Base Voltage	V_{EBO}	(-)6	V
Collector Current	I_C	(-)12	A
Collector Current (Pulse)	I_{CP}	(-)17	A
Collector Dissipation	P_C	80	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

 $T_c = 25^\circ C$ **Electrical Characteristics at $T_a = 25^\circ C$**

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = (-)40V, I_E = 0$			(-)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※	
	$h_{FE}(2)$	$V_{CE} = (-)2V, I_C = (-)5A$	30			
Gain Bandwidth Product	f_T	$V_{CE} = (-)5V, I_C = (-)1A$		10		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)6A, I_B = (-)0.3A$			0.4 (-0.5)	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)1mA, I_E = 0$	(-)60			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-)50			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)1mA, I_C = 0$	(-)6			V
Rise Time	t_{on}	See specified Test Circuit.	(0.2)0.1			μs
Storage Time	t_{stg}	"	(0.4)1.2			μs
Fall Time	t_f	"	(0.1)0.05			μs

※ : The 2SB828/2SD1064 are classified by $1A h_{FE}$ as follows :

70	Q	140	100	R	200	140	S	280
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Switching Time Test Circuit**Package Dimensions 2022A**
(unit : mm)**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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