

**SANYO**

No.1781A

**2SD1628**

NPN Epitaxial Planar Silicon Transistor

High-Current Switching Applications

**Applications**

- . Strobe DC-DC converters, relay drivers, hammer drivers, lamp drivers, motor drivers.

**Features**

- . Low saturation voltage.
- . High  $h_{FE}$ .
- . Large current capacity.
- . Very small size making it easy to provide high-density, small-sized hybrid IC's.

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

		unit
Collector to Base Voltage	$V_{CB0}$	60 V
Collector to Emitter Voltage	$V_{CEO}$	20 V
Emitter to Base Voltage	$V_{EBO}$	6 V
Collector Current	$I_C$	5 A
Collector Current(Pulse)	$I_{CP}$	8 A
Collector Dissipation	$P_C$	500 mW
	$P_C(\text{Note})$	1.5 W
Junction Temperature	$T_J$	150 $^{\circ}C$
Storage Temperature	$T_{stg}$	-55 to +150 $^{\circ}C$

(Note) Mounted on ceramic board (250mm<sup>2</sup> x 0.8mm)

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

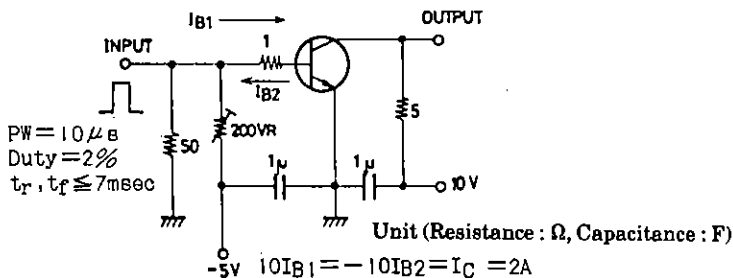
		min	typ	max	unit
Collector Cutoff Current	$I_{CB0}$			100	nA
Emitter Cutoff Current	$I_{EBO}$			100	nA
DC Current Gain	$h_{FE}(1)$	120*		560*	
	$h_{FE}(2)$	95			
Gain-Bandwidth Product	$f_T$		120		MHz
Output Capacitance	$c_{ob}$		45		pF
C-E Saturation Voltage	$V_{CE(sat)}$			500	mV
B-E Saturation Voltage	$V_{BE(sat)}$			1.5	V
Turn-ON Time	$t_{on}$		30		ns
Storage Time	$t_{stg}$		300		ns
Fall Time	$t_f$		40		ns

\* The 2SD1628 is classified by 0.5A  $h_{FE}$  as follows:

120 E	200	160 F	320	280 G	560
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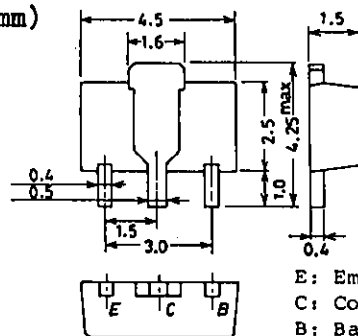
Marking :DK

**Switching Time Test Circuit**



**Package Dimensions 2038**

(unit:mm)



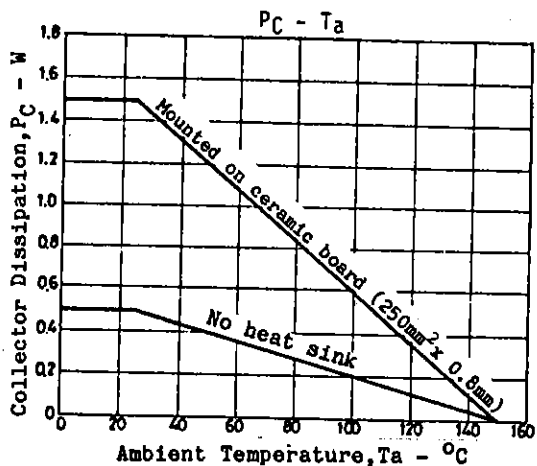
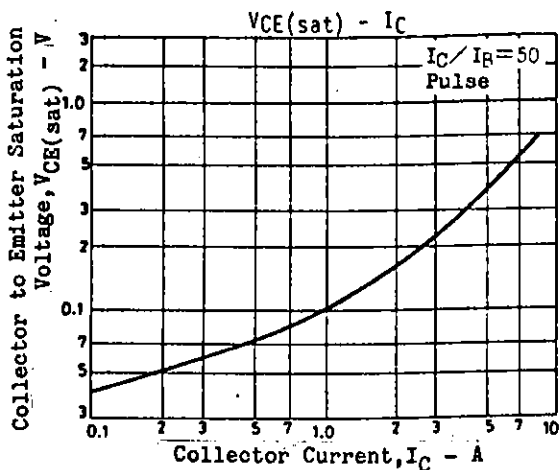
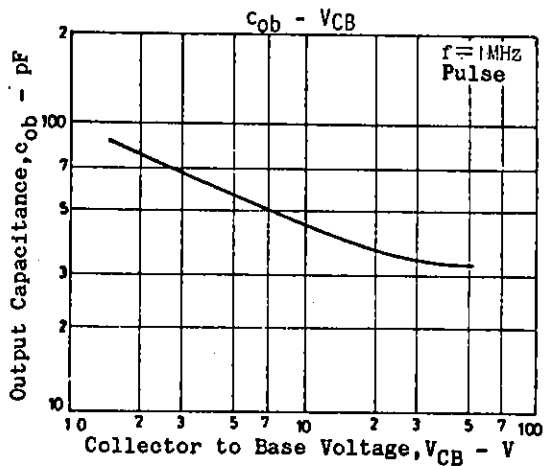
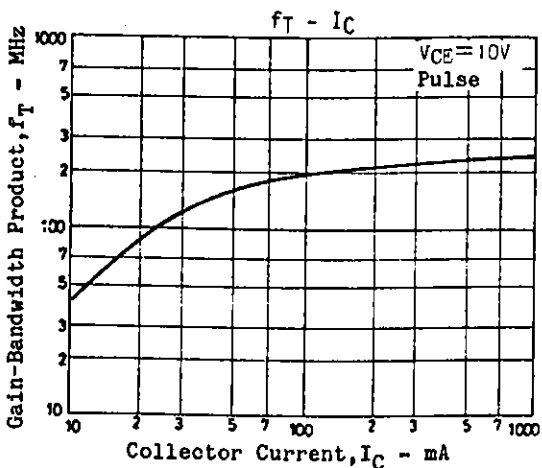
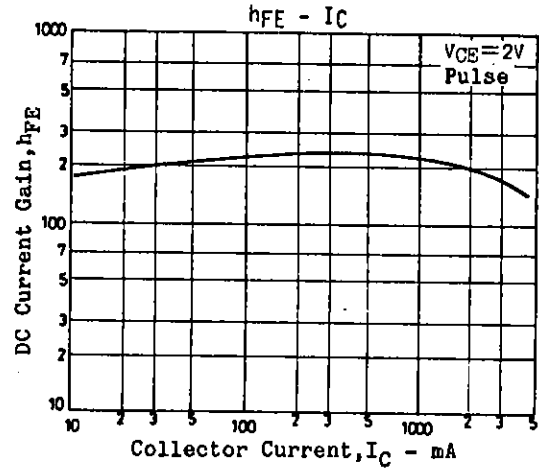
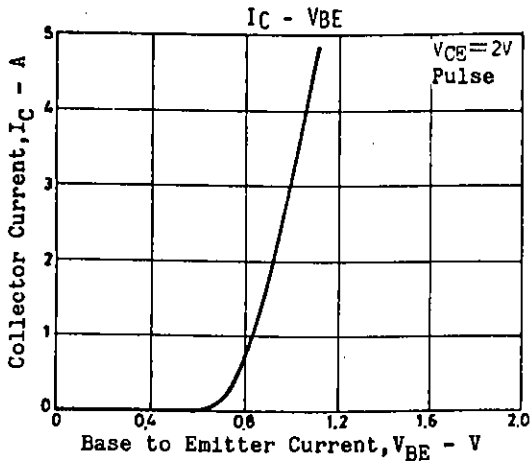
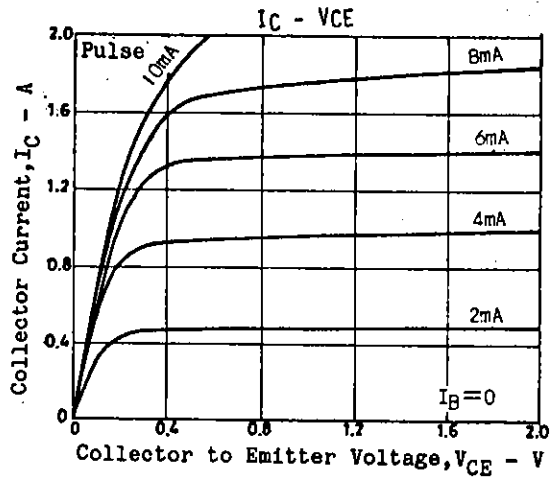
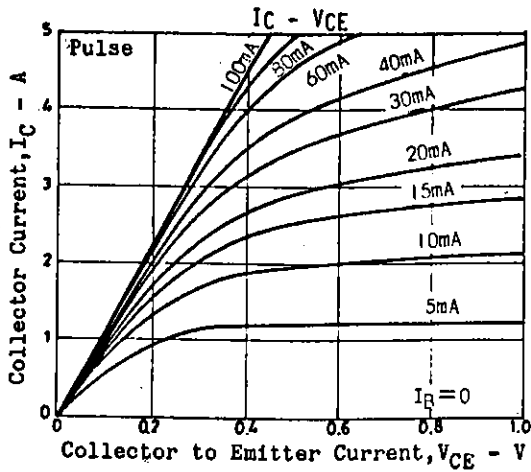
(Bottom View)

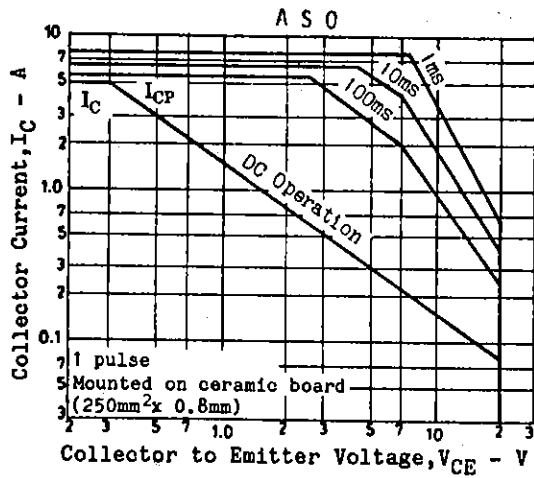
E: Emitter  
C: Collector  
B: Base

SANYO: PCP

**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

TOKYO OFFICE Tokyo Bldg., 1-10, 1-Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN





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