

<b>SANYO</b>	No.3398A	<b>2SA1772/2SC4615</b>
		2SA1772:PNP Epitaxial Planar Silicon Transistor 2SC4615:NPN Triple Diffused Planar Silicon Transistor <b>High Voltage Driver Applications</b>

**Features**

- Large current capacity ( $I_C = 1A$ )
- High breakdown voltage ( $V_{CEO} \geq 400V$ )

( ) : 2SA1772

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

			unit
Collector to Base Voltage	$V_{CBO}$	(-) $400$	V
Collector to Emitter Voltage	$V_{CEO}$	(-) $400$	V
Emitter to Base Voltage	$V_{EBO}$	(-) $5$	V
Collector Current	$I_C$	(-) $1$	A
Collector Current(Pulse)	$I_{CP}$	(-) $2$	A
Collector Dissipation	$P_C$	$1$	W
		$15$	W
Junction Temperature	$T_j$	$150$	$^\circ C$
Storage Temperature	$T_{stg}$	$-55$ to $+150$	$^\circ C$

$T_c = 25^\circ C$

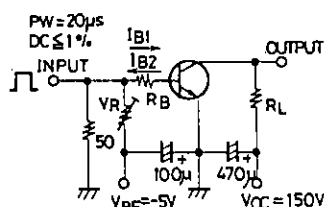
**Electrical Characteristics at  $T_a = 25^\circ C$**

			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = (-)300V, I_E = 0$			(-) $1.0$	$\mu A$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = (-)4V, I_C = 0$			(-) $1.0$	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = (-)10V, I_C = (-)100mA$	$40^*$		$200^*$	
Gain-Bandwidth Product	$f_T$	$V_{CE} = (-)10V, I_C = (-)50mA$		(50) $70$		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = (-)200mA, I_B = (-)20mA$			(-) $1.0$	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = (-)200mA, I_B = (-)20mA$			(-) $1.0$	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = (-)10\mu A, I_E = 0$	(-) $400$			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = (-)1mA, R_{BE} = \infty$	(-) $400$			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = (-)10\mu A, I_C = 0$	(-) $5$			V
Output Capacitance	$C_{ob}$	$V_{CB} = (-)30V, f = 1MHz$		(12) $8$		pF
Turn-ON Time	$t_{on}$	See specified Test Circuit.	(0.25) $0.11$			$\mu s$
Storage Time	$t_{stg}$	"	(3.0) $4.0$			$\mu s$
Fall Time	$t_f$	"	(0.3) $0.65$			$\mu s$

\*: The 2SA1772/2SC4615 are classified by 100mA  $h_{FE}$  as follows:

40 C 80	60 D 120	100 E 200
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**Switching Time Test Circuit**

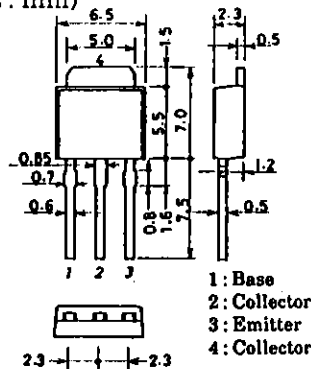


$10I_{B1} = -10I_{B2} = I_C = 200mA$   
 $R_L = 750\Omega, R_B = 50\Omega, \text{ at } I_C = 200mA$   
 (For PNP, the polarity is reversed.)

Unit (Resistance :  $\Omega$ , Capacitance : F)

**Package Dimensions 2045B**

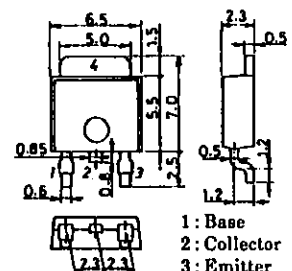
(unit : mm)



SANYO : TP

**Package Dimensions 2044B**

(unit : mm)

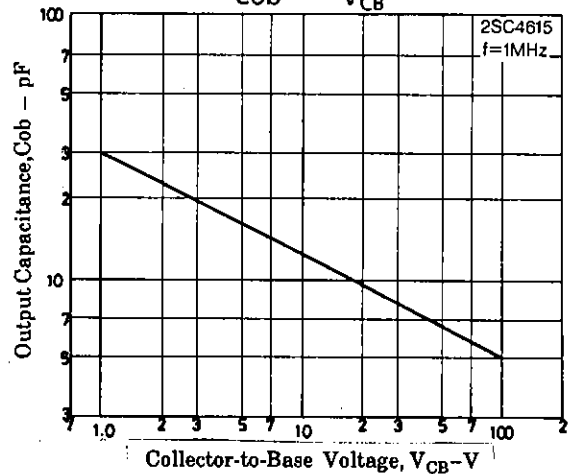
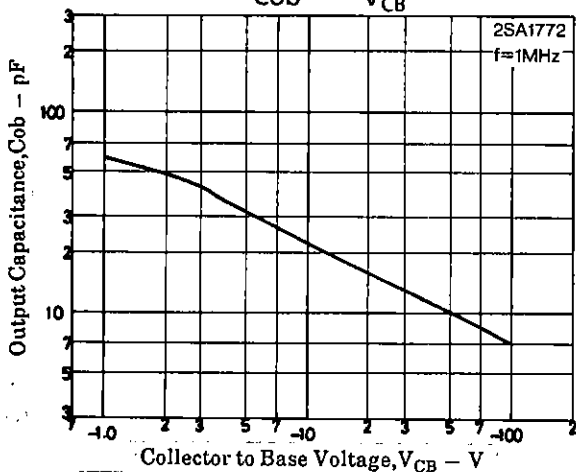
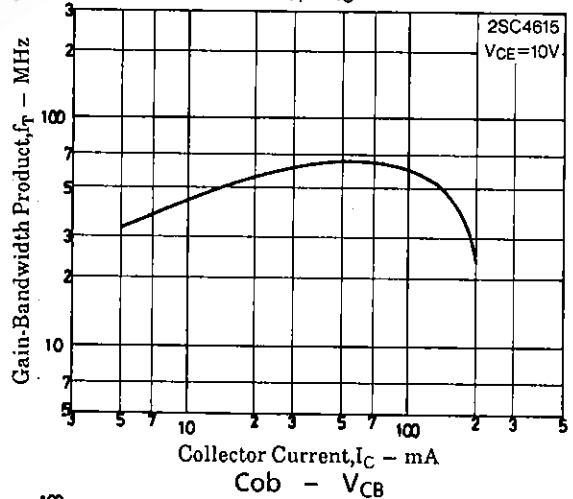
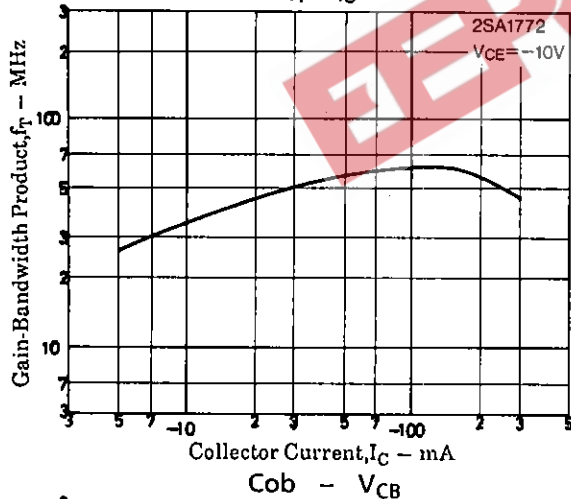
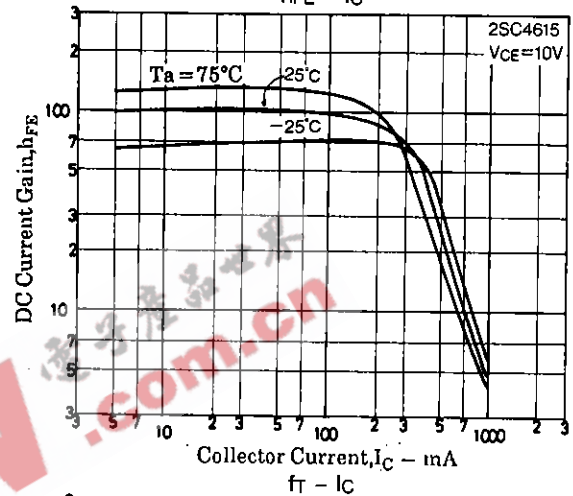
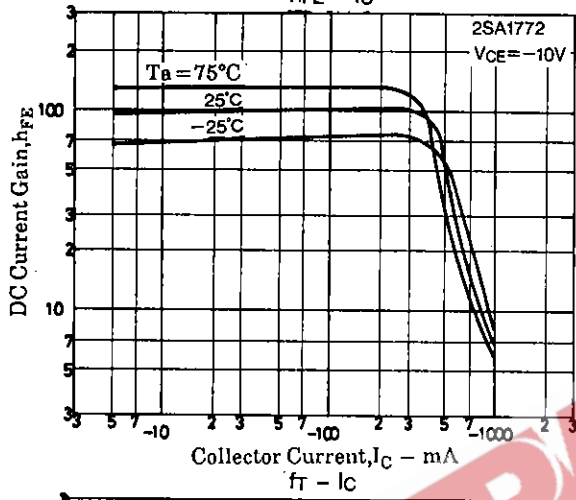
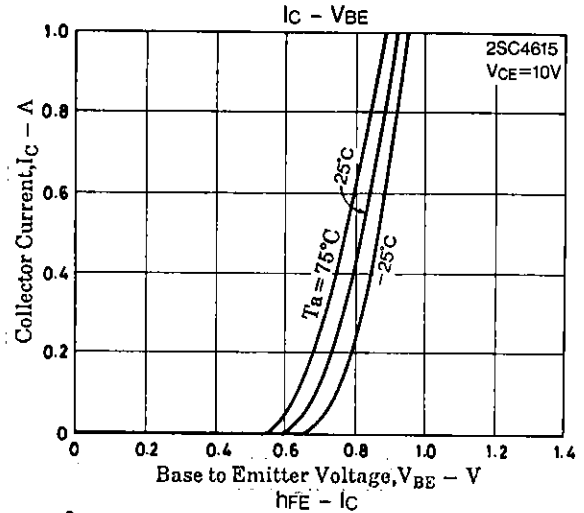
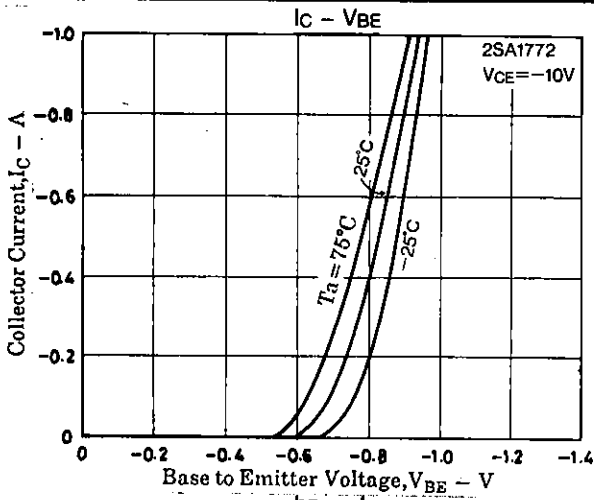


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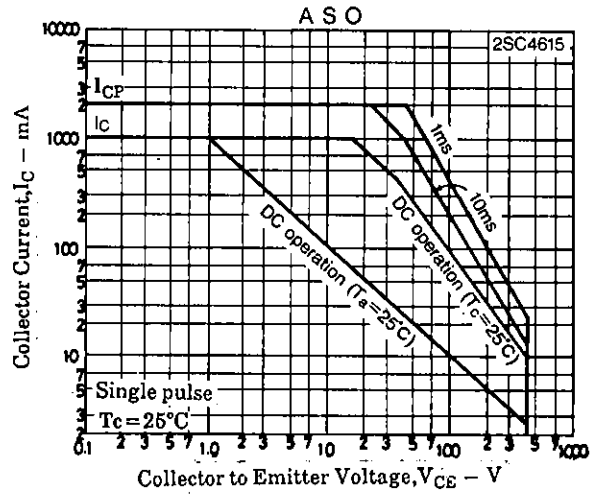
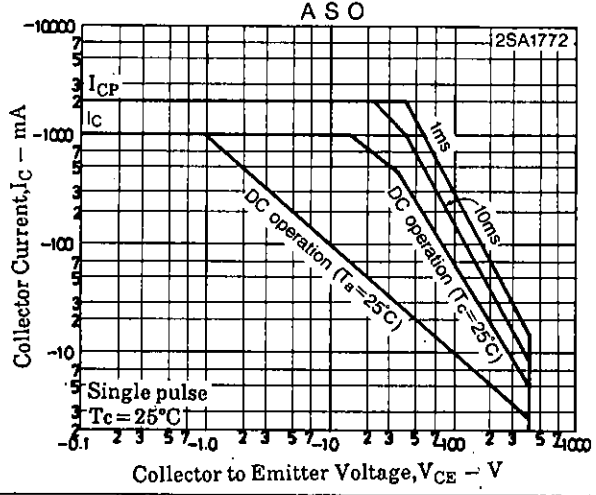
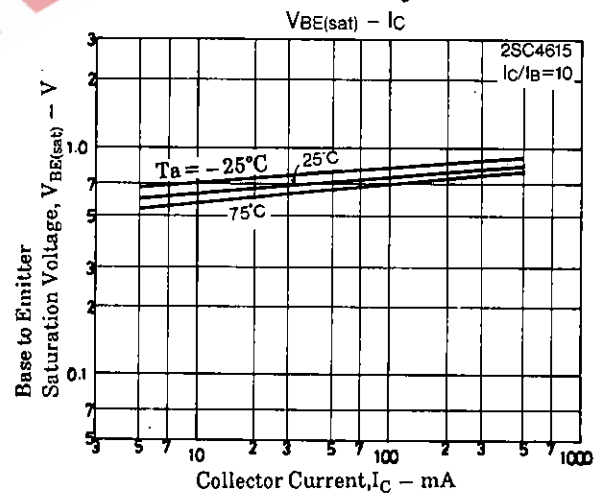
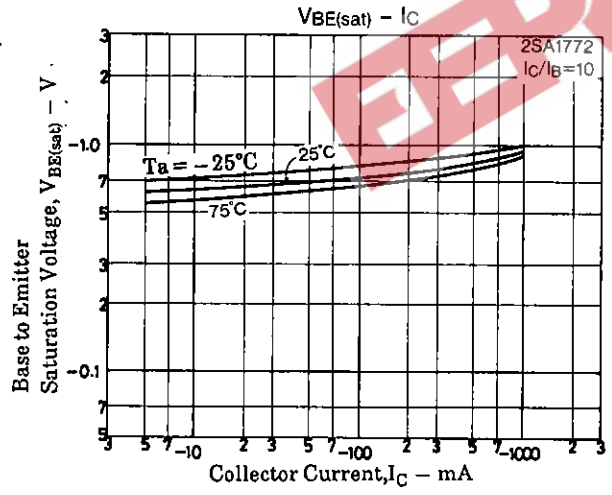
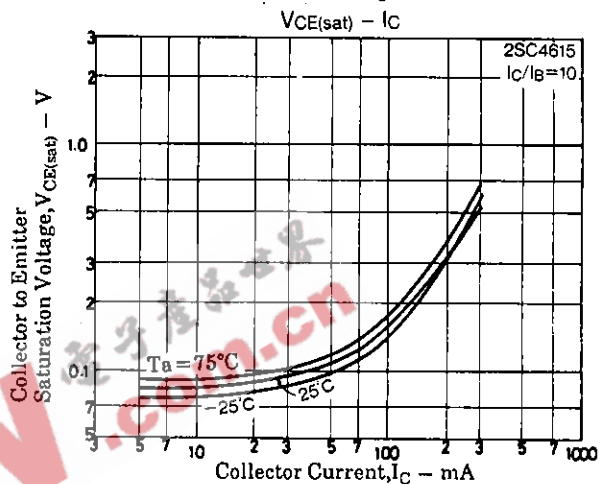
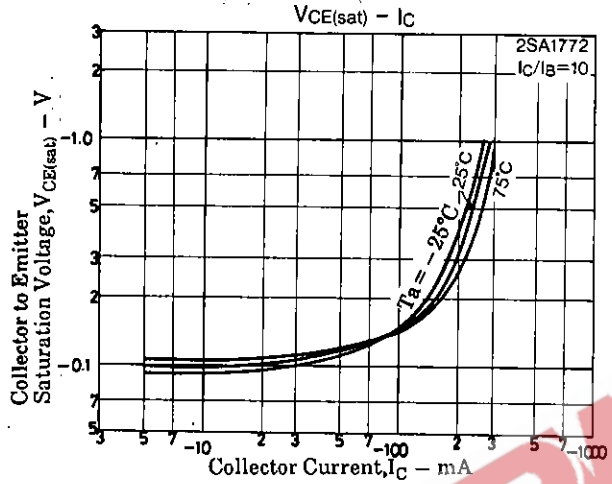
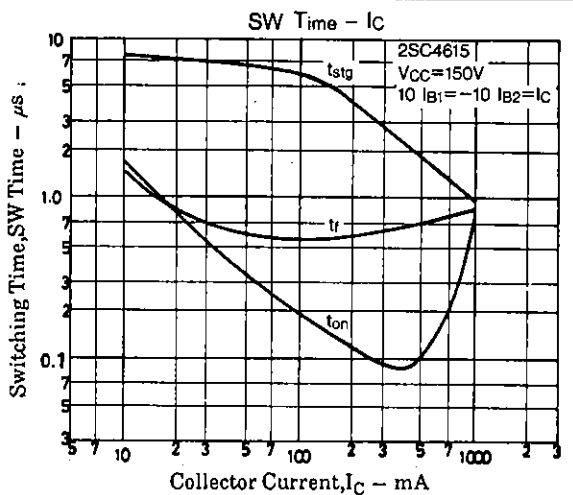
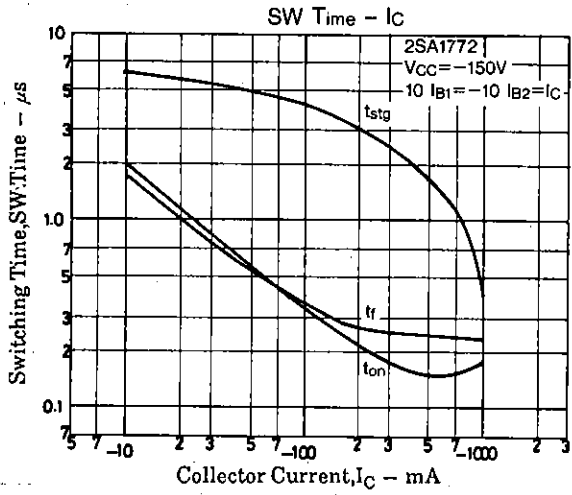
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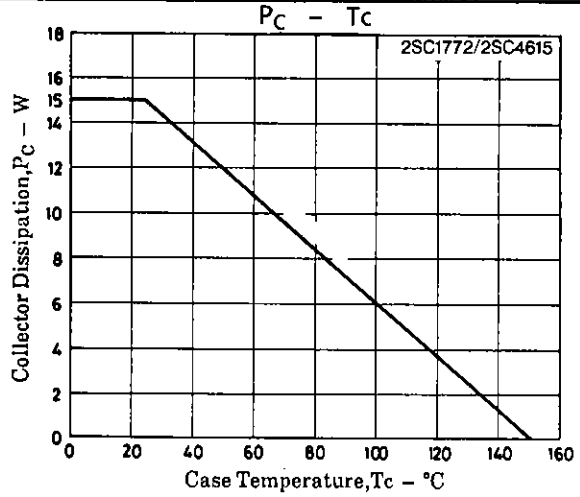
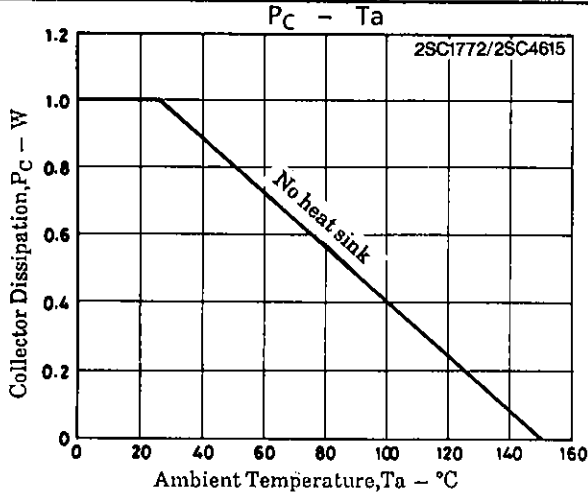
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2SA1772/2SC4615



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