2SA1772 : PNP Epitaxial Planar Silicon Transistor 2SC4615 : NPN Triple Diffused Planar Silicon Transistor



2SA1772/2SC4615

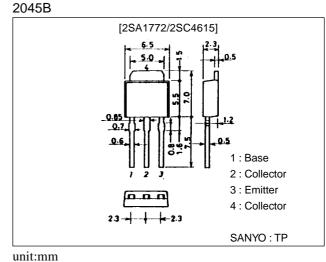
High-Voltage Driver Applications

Features

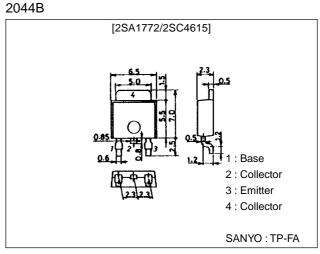
- · Large current capacity ($I_C=1A$).
- \cdot High breakdown votlage (V_{CEO}{\geq}400V).

Package Dimensions

unit:mm



unit:mm



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Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V _{СВО}		(–)400	V
Collector-to-Emitter Voltage	VCEO		(–)400	V
Emitter-to-Base Voltage	VEBO		(–)5	V
Collector Current	IC		(–)1	А
Colletor Current (Pulse)	I _{CP}		(–)2	А
Collector Dissipation	PC		1	W
		Tc=25°C	15	W
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

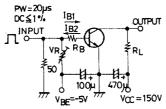
Electrical Characteristics at Ta = 25°C

Parameter	Cumhal	Conditions		Ratings		
	Symbol		min	typ	max	Unit
Collector Cutoff Current	ICBO	V _{CB} =(-)300V, I _E =0			(–)1.0	μA
Emitter Cutoff Current	IEBO	V _{EB} =(-)4V, I _C =0			(–)1.0	μA
DC Current Gain	hFE	V _{CE} =(-)10V, I _C =(-)100mA	40*		200*	
Gain-Bandwidth Product	fT	V _{CE} =(-)10V, I _C =(-)50mA		(50)70		MHz
Output Capacitance	C _{ob}	V _{CB} =(-)30V, f=1MHz		(12)8		pF
Collector-to-Emitter Saturation Voltage	V _{CE(sat)}	I _C =(-)200mA, I _B =(-)20mA			(–)1.0	V
Base-to-Emitter Saturation Voltage	V _{BE(sat)}	I _C =(-)200mA, I _B =(-)20mA			(–)1.0	V
Collector-to-Base Breakdown Voltage	V _(BR) CBO	I _C =(-)10μA, I _E =0	(–)400			V
Collector-to-Emitter Breakdown Voltage	V(BR)CEO	I _C =(−)1mA, R _{BE} =∞	(–)400			V
Emitter-to-Base Breakdown Voltage	V _{(BR)EBO}	I _E =(-)10μA, I _C =0	(–)5			V
Turn-ON Time	ton	See specified Test Circuit		(0.25)		μs
				0.11		μs
Storage Time	t _{stg}	See specified Test Circuit		(3.0)		μs
				4.0		μs
Fall Time	t _f	See specified Test Circuit		(0.3)		μs
				0.65		μs

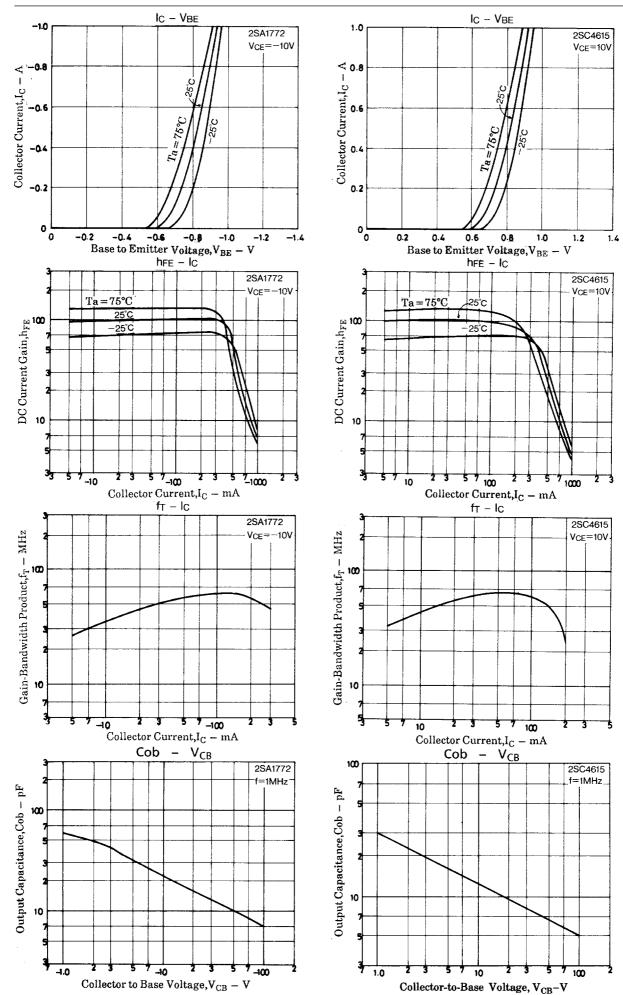
 \ast : The 2SA1772/2SC4615 are classified by 100mA h_{FE} as follows :

40 C 80 60 D 120 100 E 200

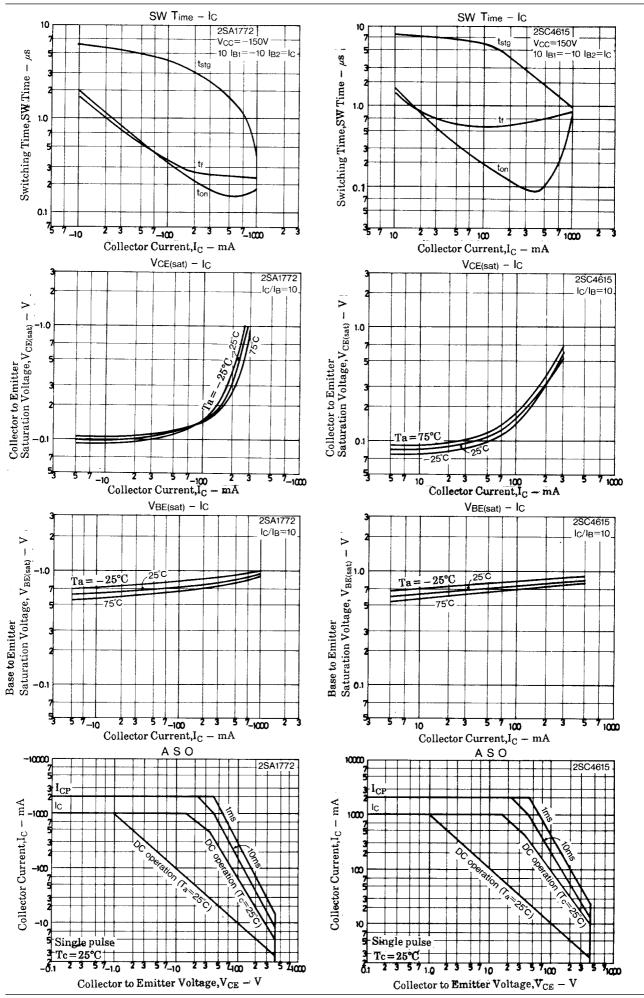
Switching Time Test Circuit

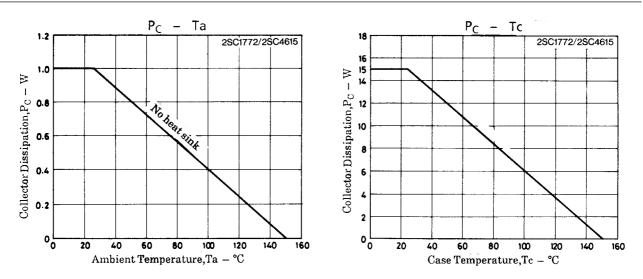


 $10I_{B1} = -10I_{B2} = I_C = 200 \text{mA}$ $R_L = 750\Omega$, $R_B = 50\Omega$, at $I_C = 200 \text{mA}$ (For PNP, the polarity is reversed.) Unit (resistance : Ω , capacitance : F)



2SA1772/2SC4615





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