

# 2SC3795, 2SC3795A

Silicon NPN triple diffusion planar type  
For high breakdown voltage high-speed switching

## ■ Features

- High-speed switching
- High collector to base voltage  $V_{CBO}$
- Low collector to emitter saturation voltage  $V_{CE(sat)}$
- Full-pack package which can be installed to the heat sink with one screw

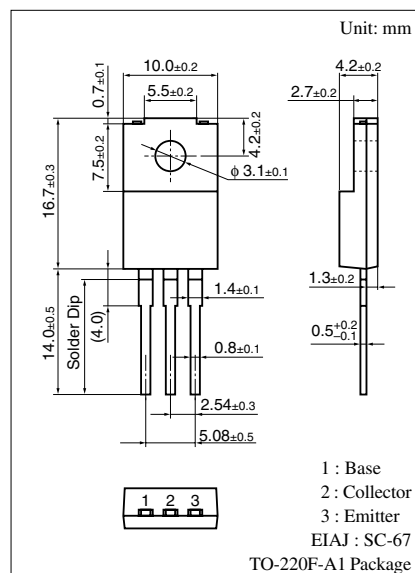
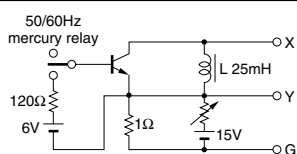
## ■ Absolute Maximum Ratings $T_C = 25^\circ\text{C}$

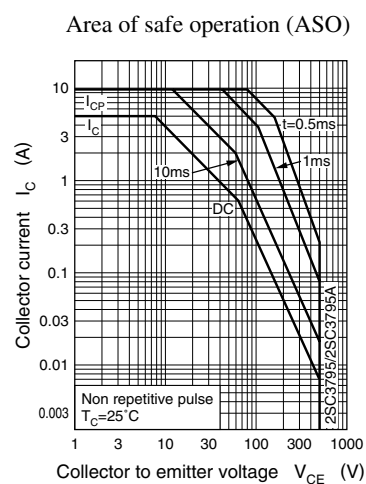
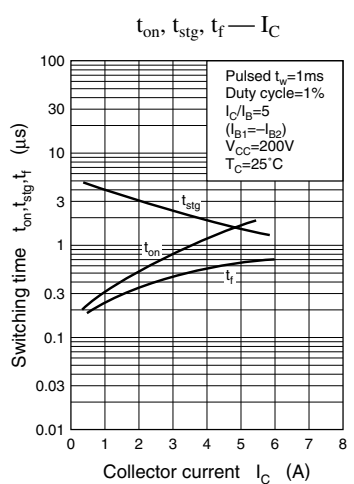
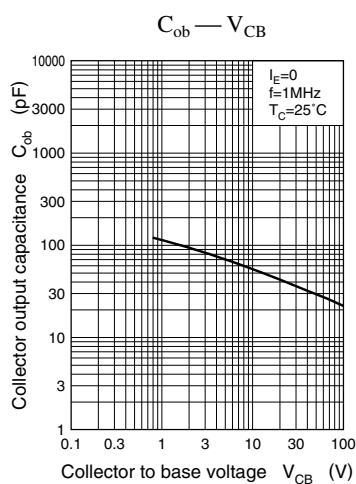
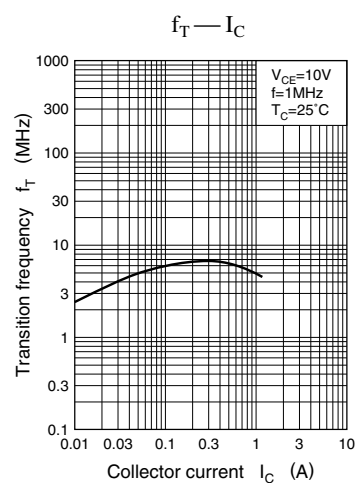
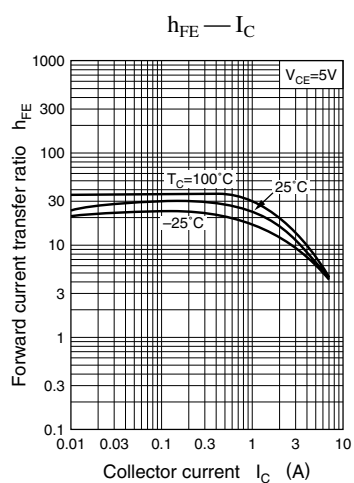
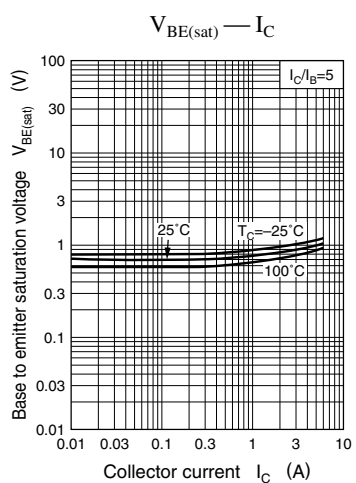
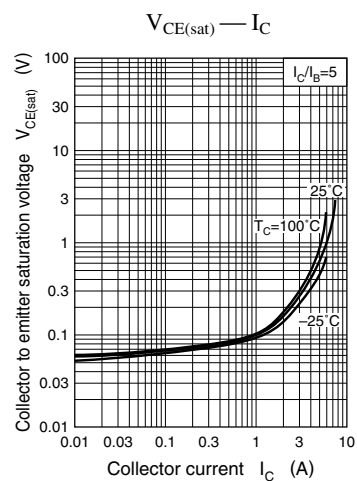
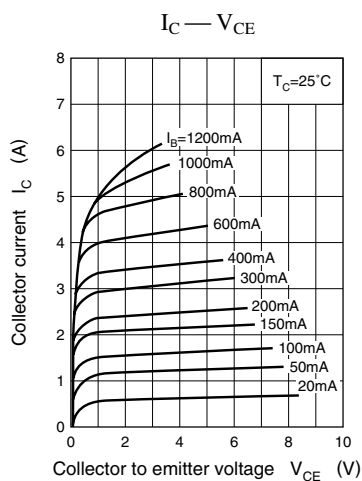
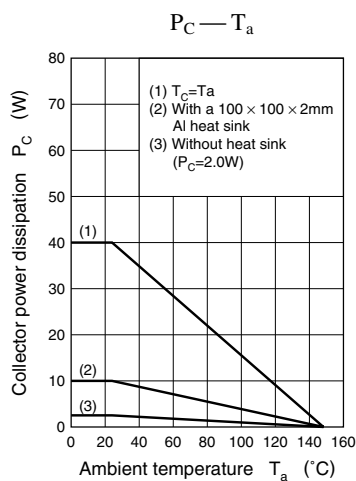
Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	800	V
		900	
Collector to emitter voltage	$V_{CES}$	800	V
		900	
Collector to emitter voltage	$V_{CEO}$	500	V
Emitter to base voltage	$V_{EBO}$	8	V
Peak collector current	$I_{CP}$	10	A
Collector current	$I_C$	5	A
Base current	$I_B$	3	A
Collector power dissipation	$P_C$	40	W
		2	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

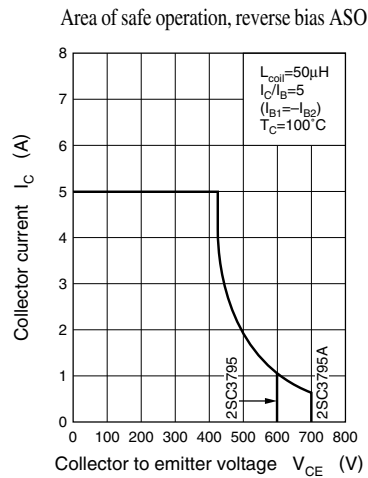
## ■ Electrical Characteristics $T_C = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 800\text{ V}, I_E = 0$			100	$\mu\text{A}$
		$V_{CB} = 900\text{ V}, I_E = 0$			100	
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_C = 0$			100	$\mu\text{A}$
Collector to emitter voltage *	$V_{CEO(sus)}$	$I_C = 0.2\text{ A}, L = 25\text{ mH}$	500			V
Forward current transfer ratio	$h_{FE1}$	$V_{CE} = 5\text{ V}, I_C = 0.1\text{ A}$	15			
	$h_{FE2}$	$V_{CE} = 5\text{ V}, I_C = 3\text{ A}$	8			
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3\text{ A}, I_B = 0.6\text{ A}$			1	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 3\text{ A}, I_B = 0.6\text{ A}$			1.5	V
Transition frequency	$f_T$	$V_{CE} = 10\text{ V}, I_C = 0.5\text{ A}, f = 1\text{ MHz}$		8		MHz
Turn-on time	$t_{on}$	$I_C = 3\text{ A}, I_{B1} = 0.6\text{ A}, I_{B2} = -0.6\text{ A}, V_{CC} = 200\text{ V}$			1	$\mu\text{s}$
					1.2	
Storage time	$t_{stg}$				3	$\mu\text{s}$
Fall time	$t_f$				1	$\mu\text{s}$
					1.2	

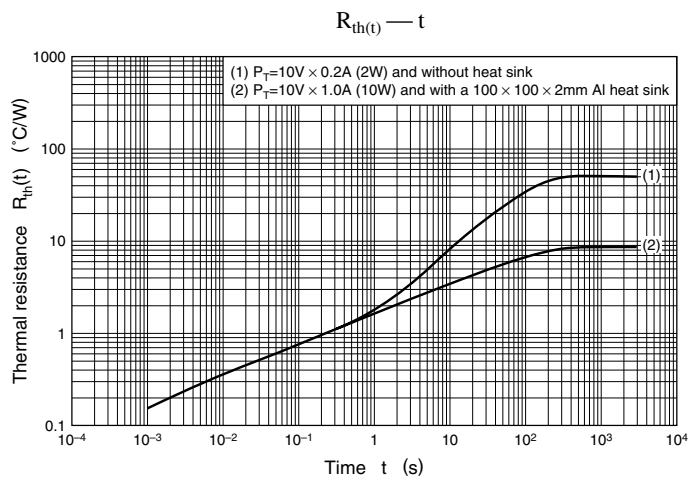
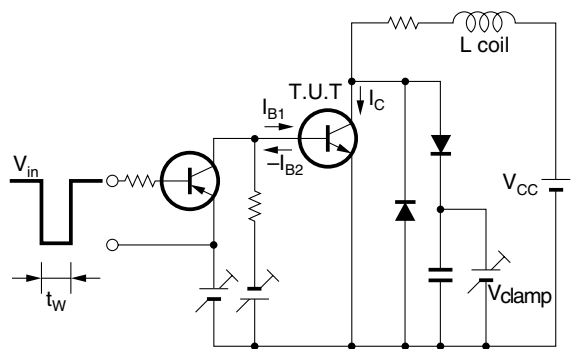
Note) \*:  $V_{CEO(sus)}$  Test circuit







Reverse bias ASO measuring circuit



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