

2SA1499

Silicon PNP Epitaxial Planar Type

High Speed Switching

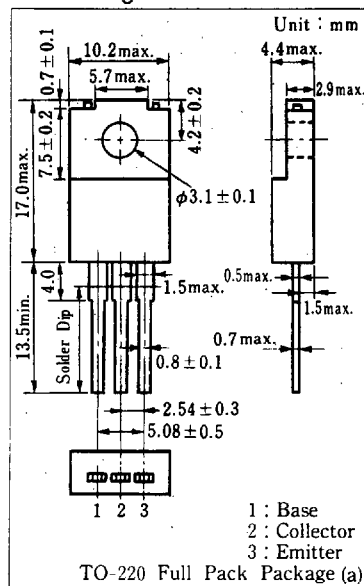
■ Features

- High DC current gain (h_{FE})
- High collector-base voltage (V_{CBO})
- High collector-emitter voltage (V_{CEO})
- "Full Pack" package for simplified mounting on a heat sink with one screw

■ Absolute Maximum Ratings ($T_c=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Collector-base voltage	V_{CBO}	-400	V
Collector-emitter voltage	V_{CEO}	-400	V
Emitter-base voltage	V_{EBO}	-7	V
Peak collector current	I_{CP}	-1.2	A
Collector current	I_C	-0.6	A
Collector power dissipation	$T_c=25^\circ\text{C}$	25	W
	$T_a=25^\circ\text{C}$	2	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

■ Package Dimensions

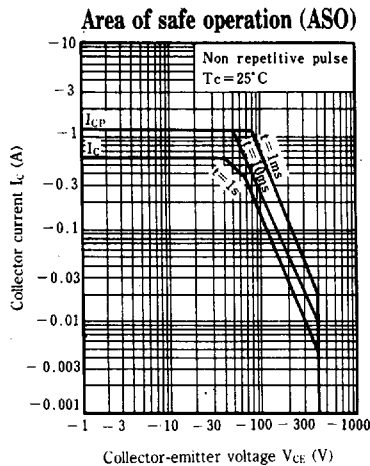
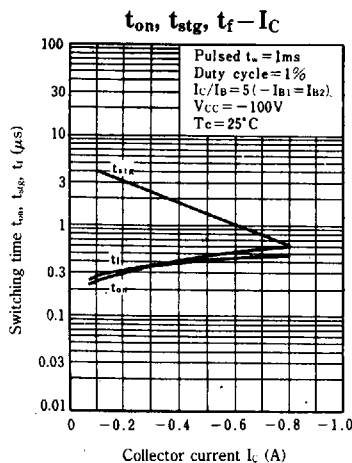
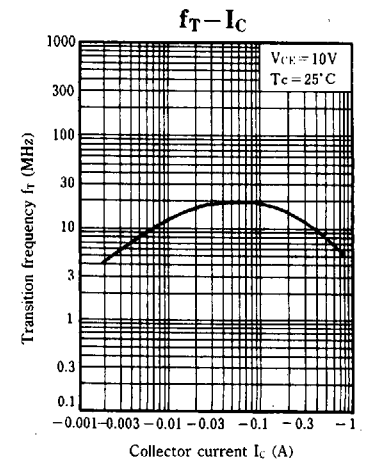
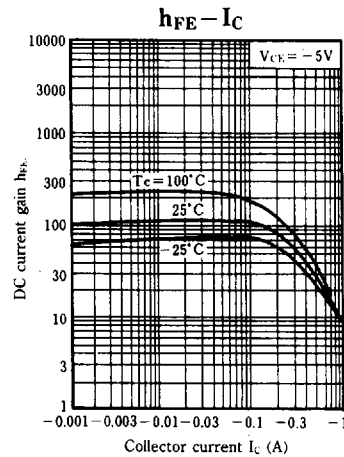
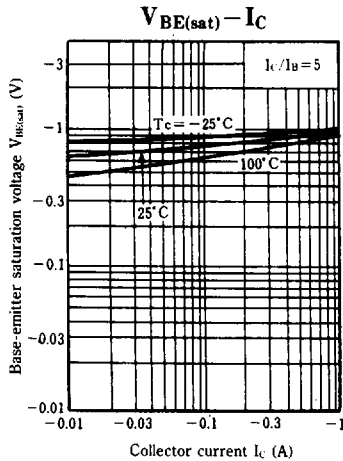
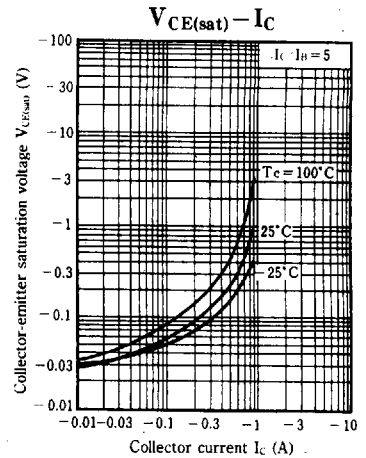
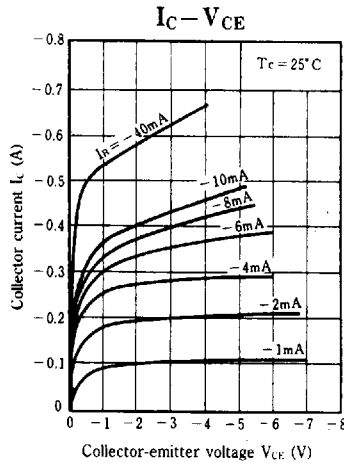
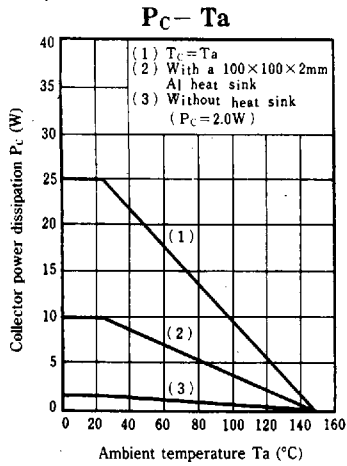


■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -400\text{V}, I_E = 0$			-100	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -7\text{V}, I_C = 0$			-100	μA
Collector isolation voltage	V_{CEO}	$I_C = -10\text{mA}, I_B = 0$	-400			V
DC current gain	h_{FE1}^*	$V_{CE} = -5\text{V}, I_C = -100\text{mA}$	30		160	
	h_{FE2}	$V_{CE} = -5\text{V}, I_C = -300\text{mA}$	10			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -300\text{mA}, I_B = -60\text{mA}$			-1.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10\text{V}, I_B = -60\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -100\text{mA}, f = 1\text{MHz}$		15		MHz
Turn-on time	t_{on}	$I_C = -300\text{mA}$			1.0	μs
Storage time	t_{stg}	$I_{B1} = -60\text{mA}, I_{B2} = 60\text{mA}$			3.5	μs
Fall time	t_f	$V_{CC} = -100\text{V}$			1.0	μs

* h_{FE1} Classifications

Class	Q	P	O
h_{FE1}	30 ~ 60	50 ~ 100	80 ~ 160



Note) Refer to P.177 (on 2SB941/A) for $R_{\theta(ja)} - t$ characteristics.

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