

2SB1499, 2SB1499A

Silicon PNP epitaxial planar type

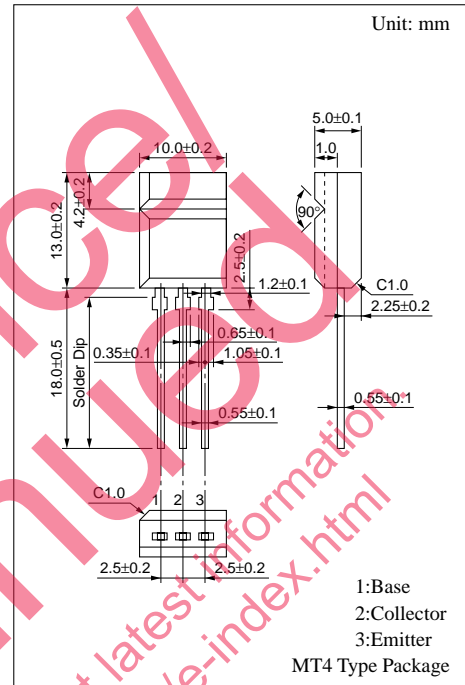
For low-frequency power amplification

■ Features

- High forward current transfer ratio h_{FE} which has satisfactory linearity
- Low collector to emitter saturation voltage $V_{CE(sat)}$
- Allowing automatic insertion with radial taping

■ Absolute Maximum Ratings ($T_C=25^\circ C$)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-60	V
2SB1499A		-80	
Collector to emitter voltage	V_{CEO}	-60	V
2SB1499A		-80	
Emitter to base voltage	V_{EBO}	-5	V
Peak collector current	I_{CP}	-8	A
Collector current	I_C	-4	A
Collector power dissipation	P_C	15	W
$T_C=25^\circ C$ $T_a=25^\circ C$		2	
Junction temperature	T_j	150	$^\circ C$
Storage temperature	T_{stg}	-55 to +150	$^\circ C$

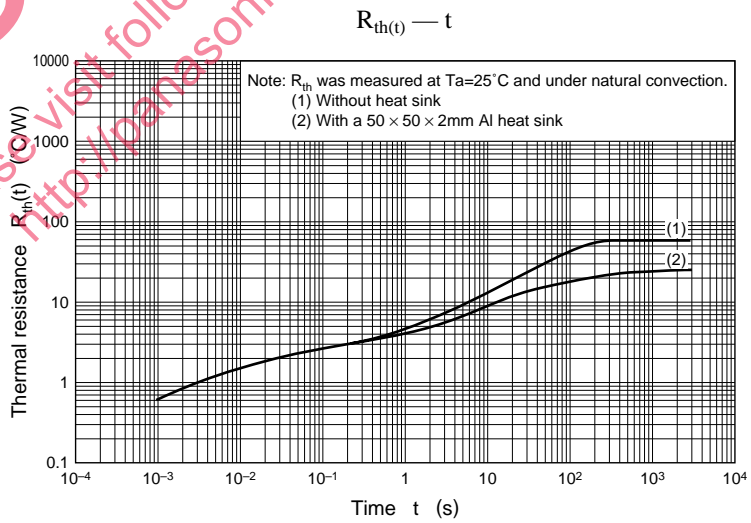
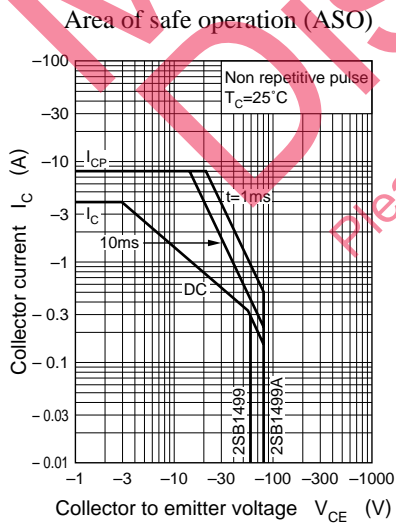
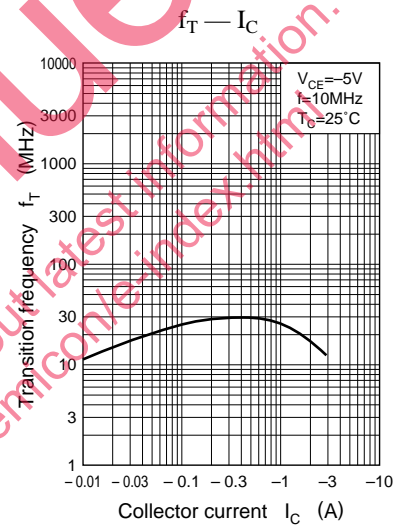
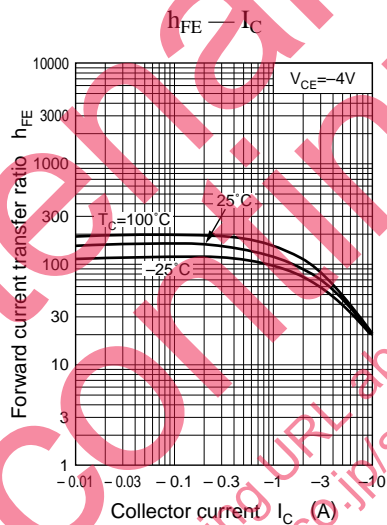
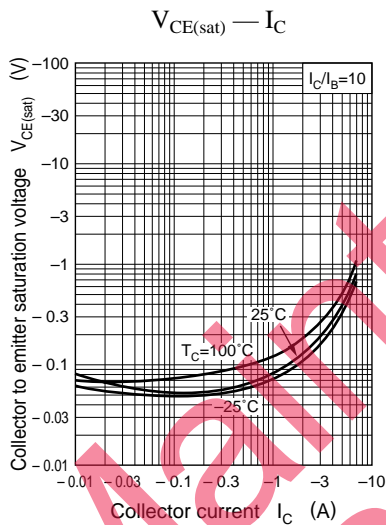
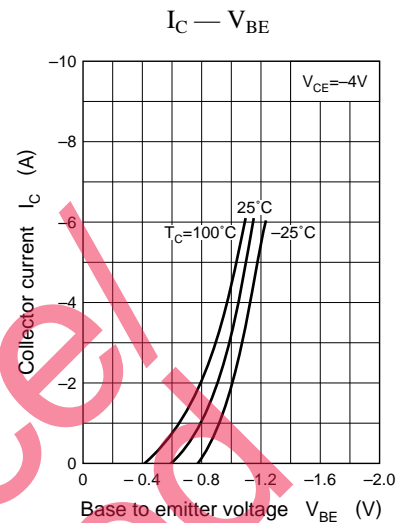
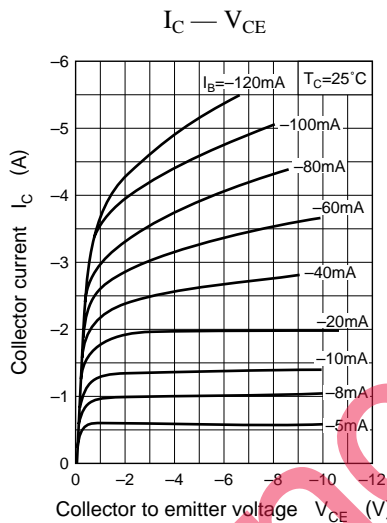
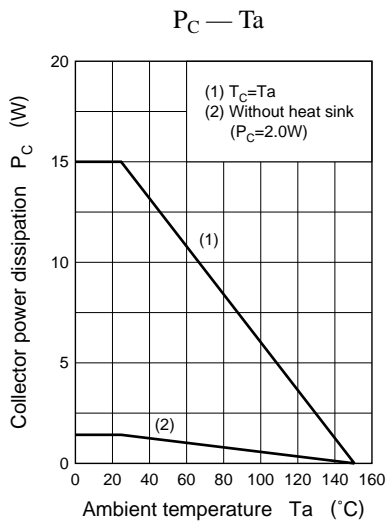


■ Electrical Characteristics ($T_C=25^\circ C$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CES}	$V_{CE} = -60V, V_{BE} = 0$			-400	μA
2SB1499A		$V_{CE} = -80V, V_{BE} = 0$			-400	
Collector cutoff current	I_{CEO}	$V_{CE} = -30V, I_B = 0$			-700	μA
2SB1499A		$V_{CE} = -60V, I_B = 0$			-700	
Emitter cutoff current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-1	mA
Collector to emitter voltage	V_{CEO}	$I_C = -30mA, I_B = 0$	-60			V
2SB1499A			-80			
Forward current transfer ratio	h_{FE1}	$V_{CE} = -4V, I_C = -1A$	70		250	
	h_{FE2}	$V_{CE} = -4V, I_C = -3A$	15			
Base to emitter voltage	V_{BE}	$V_{CE} = -4V, I_C = -3A$			-2	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -4A, I_B = -0.4A$			-1.5	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -0.1A, f = 10MHz$		30		MHz
Turn-on time	t_{on}	$I_C = -4A, I_{B1} = -0.4A, I_{B2} = 0.4A$		0.2		μs
Storage time	t_{stg}			0.5		μs
Fall time	t_f			0.2		μs

* h_{FE1} Rank classification

Rank	Q	P
h_{FE1}	70 to 150	120 to 250



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