



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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2SB1417A

Silicon PNP epitaxial planar type

For power amplification

Complementary to 2SD2137A

■ Features

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

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-80	V
Collector-emitter voltage (Base open)	V_{CEO}	-80	V
Emitter-base voltage (Collector open)	V_{EBO}	-6	V
Collector current	I_C	-3	A
Peak collector current	I_{CP}	-5	A
Collector power dissipation	$T_C = 25^\circ\text{C}$ P_C	15	W
		2.0	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

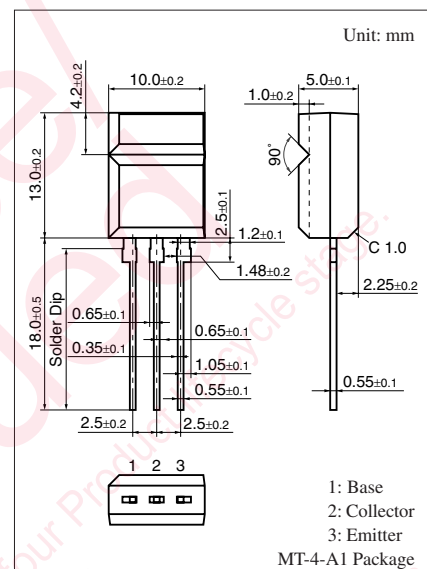
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

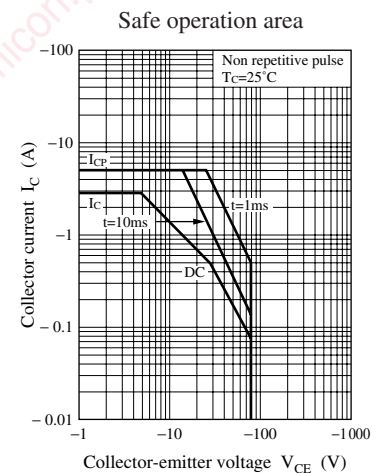
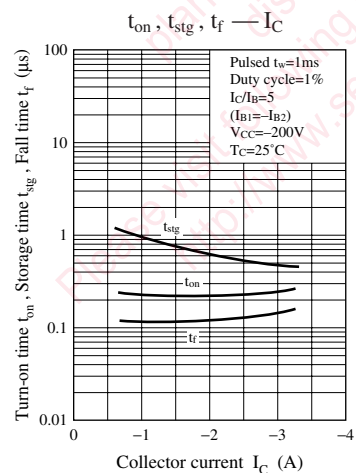
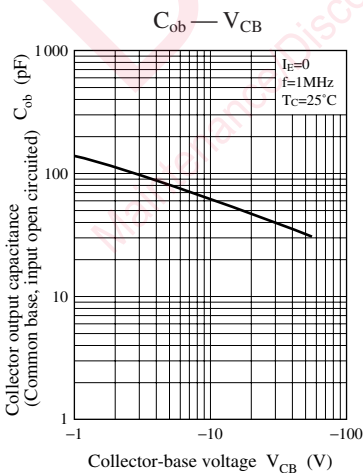
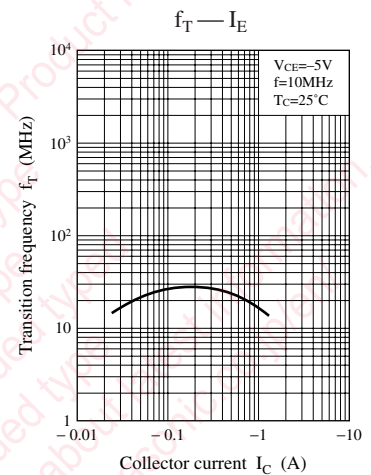
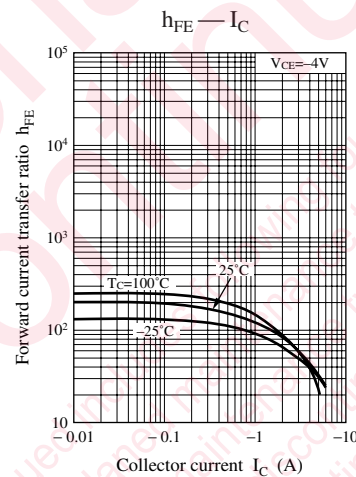
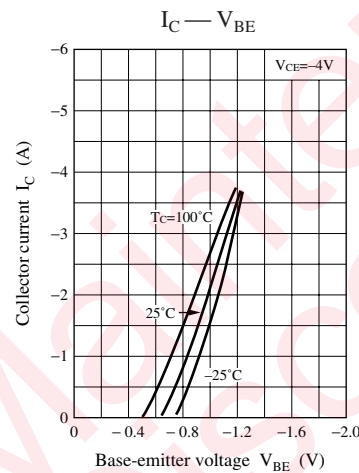
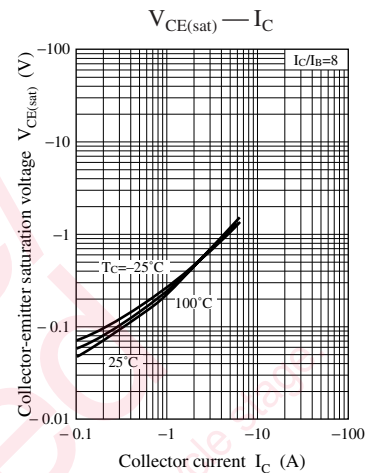
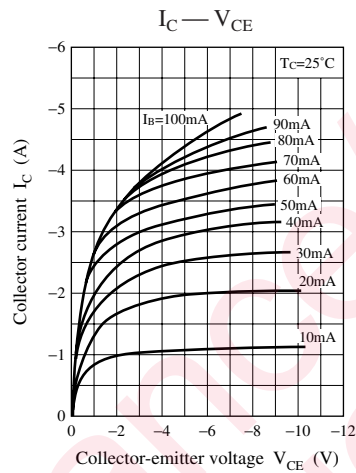
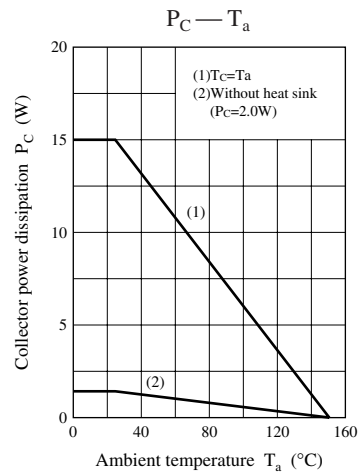
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -30\text{ mA}$, $I_B = 0$	-80			V
Base-emitter voltage	V_{BE}	$V_{CE} = -4\text{ V}$, $I_C = -3\text{ A}$			-1.8	V
Collector-emitter cutoff current (E-B short)	I_{CES}	$V_{CE} = -80\text{ V}$, $V_{BE} = 0$			-100	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -60\text{ V}$, $I_B = 0$			-100	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -6\text{ V}$, $I_C = 0$			-100	μA
Forward current transfer ratio	h_{FE1}^*	$V_{CE} = -4\text{ V}$, $I_C = -1\text{ A}$	70		250	—
	h_{FE2}	$V_{CE} = -4\text{ V}$, $I_C = -3\text{ A}$	10			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3\text{ A}$, $I_B = -0.375\text{ A}$			-1.2	V
Transition frequency	f_T	$V_{CE} = -5\text{ V}$, $I_C = -0.2\text{ A}$, $f = 10\text{ MHz}$		30		MHz
Turn-on time	t_{on}	$I_C = -1\text{ A}$, $I_{B1} = -0.1\text{ A}$, $I_{B2} = 0.1\text{ A}$		0.3		μs
Storage time	t_{stg}	$V_{CC} = -50\text{ V}$		1.0		μs
Fall time	t_f			0.2		μs

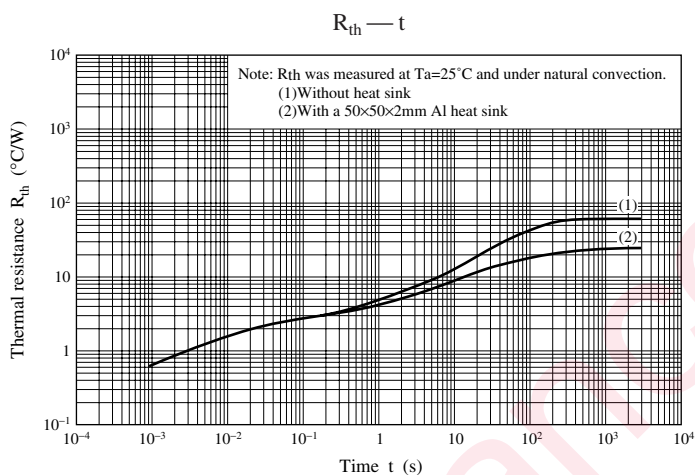
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

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







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