

2SD1423, 2SD1423A

Silicon NPN epitaxial planer type

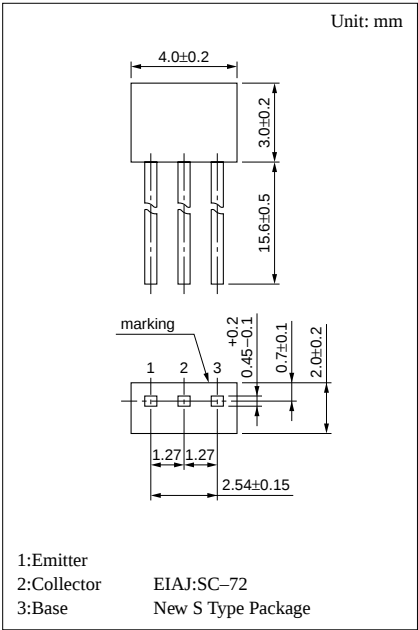
For low-frequency amplification
Complementary to 2SB1030 and 2SB1030A

Features

- Optimum for high-density mounting.
- Allowing supply with the radial taping.

Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Ratings	Unit
Collector to base voltage	2SD1423	V _{CBO}	30	V
	2SD1423A		60	
Collector to emitter voltage	2SD1423	V _{CEO}	25	V
	2SD1423A		50	
Emitter to base voltage		V _{EBO}	7	V
Peak collector current		I _{CP}	1	A
Collector current		I _C	0.5	A
Collector power dissipation		P _C	300	mW
Junction temperature		T _j	150	°C
Storage temperature		T _{sig}	−55 ~ +150	°C



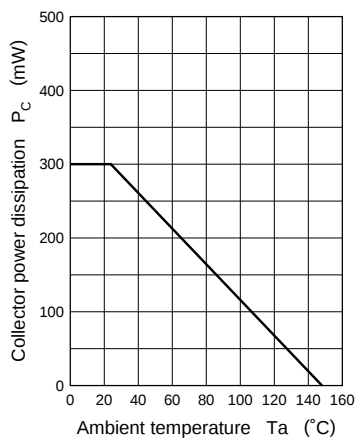
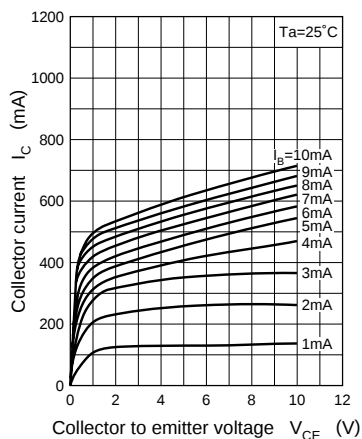
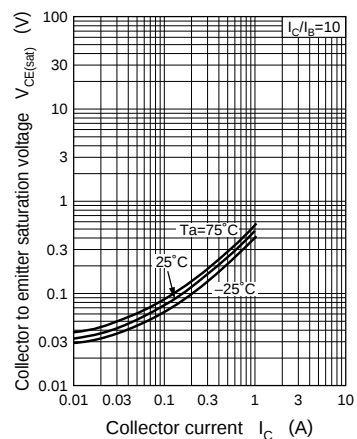
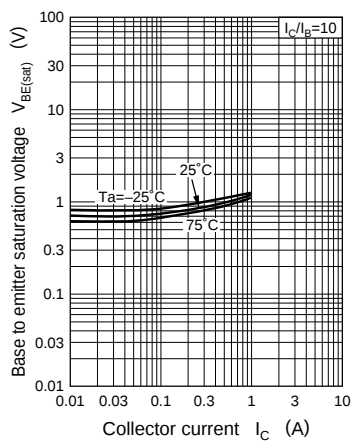
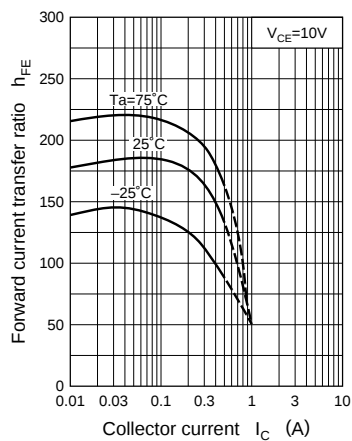
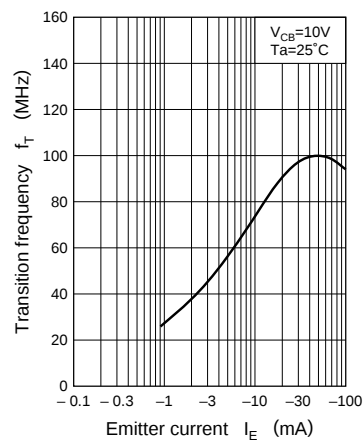
Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = 20V, I _E = 0			0.1	μA
	I _{CEO}	V _{CE} = 20V, I _B = 0			1	μA
Collector to base voltage	V _{CBO}	I _C = 10μA, I _E = 0	2SD1423 30			V
			2SD1423A 60			
Collector to emitter voltage	V _{CEO}	I _C = 2mA, I _B = 0	2SD1423 25			V
			2SD1423A 50			
Emitter to base voltage	V _{EBO}	I _E = 10μA, I _C = 0	7			V
Forward current transfer ratio	h _{FE1} *1	V _{CE} = 10V, I _C = 150mA*2	85		340	
	h _{FE2}	V _{CE} = 10V, I _C = 500mA*2	40			
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 300mA, I _B = 30mA*2			0.6	V
Transition frequency	f _T	V _{CB} = 10V, I _E = -50mA, f = 200MHz		200		MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz		6	15	pF

*2 Pulse measurement

*1h_{FE1} Rank classification

Rank	Q	R	S
h _{FE1}	85 ~ 170	120 ~ 240	170 ~ 340

$P_C - T_a$  $I_C - V_{CE}$  $V_{CE(\text{sat})} - I_C$  $V_{BE(\text{sat})} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$ 