

2SD2240, 2SD2240A

Silicon NPN epitaxial planer type

For high breakdown voltage low-frequency and low-noise amplification

Features

- High collector to emitter voltage V_{CEO} .
- Low noise voltage NV.
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing.

Absolute Maximum Ratings (Ta=25°C)

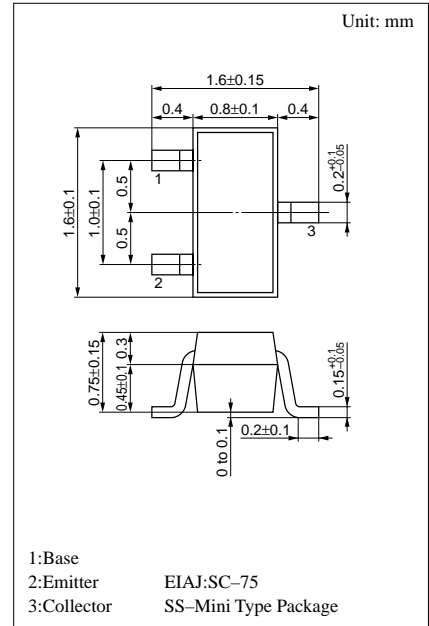
Parameter	Symbol	Ratings	Unit
Collector to base voltage	V _{CBO}	150	V
2SD2240A		185	
Collector to emitter voltage	V _{CEO}	150	V
2SD2240A		185	
Emitter to base voltage	V _{EBO}	5	V
Peak collector current	I _{CP}	100	mA
Collector current	I _C	50	mA
Collector power dissipation	P _C	125	mW
Junction temperature	T _j	125	°C
Storage temperature	T _{stg}	-55 ~ +125	°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I _{CBO}	V _{CB} = 100V, I _E = 0			1	μA
Collector to emitter voltage	V _{CEO}	I _C = 100μA, I _B = 0	150			V
			185			
Emitter to base voltage	V _{EBO}	I _E = 10μA, I _C = 0	5			V
Forward current transfer ratio	h _{FE} *	V _{CE} = 5V, I _C = 10mA	130		330	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 30mA, I _B = 3mA			1	V
Transition frequency	f _T	V _{CB} = 10V, I _E = -10mA, f = 200MHz		150		MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz		2.3		pF
Noise voltage	NV	V _{CE} = 10V, I _C = 1mA, G _v = 80dB R _g = 100kΩ, Function = FLAT		150		mV

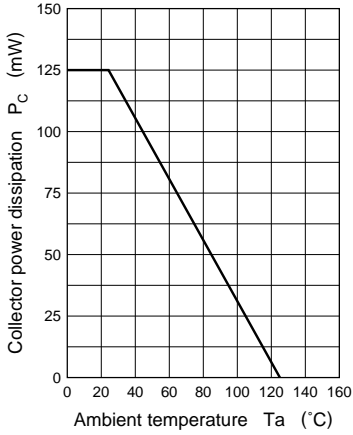
*1h_{FE1} Rank classification

Rank	R	S
h _{FE}	130 ~ 220	185 ~ 330
Marking Symbol	2SD2240 PR	2SD2240A PS
	LR	LS

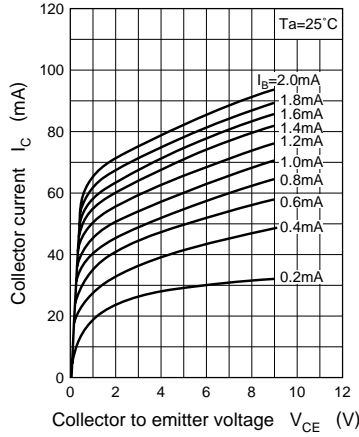


Marking symbol : P(2SD2240)
L(2SD2240A)

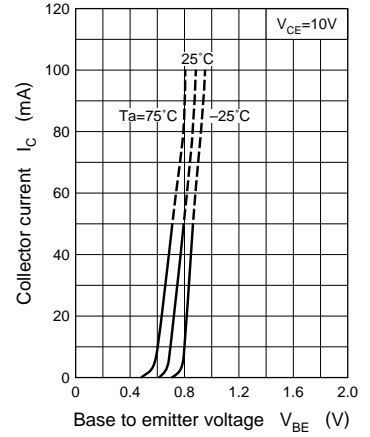
$P_C - T_a$



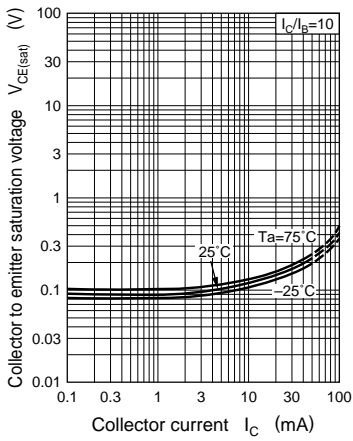
$I_C - V_{CE}$



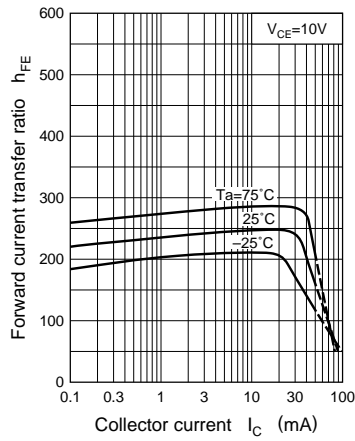
$I_C - V_{BE}$



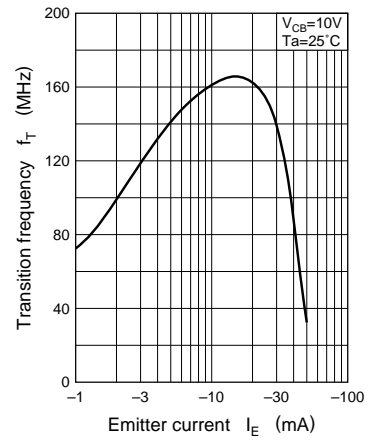
$V_{CE(sat)} - I_C$



$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$

