2SD2240, 2SD2240A

Silicon NPN epitaxial planar type

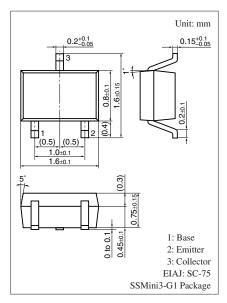
For high breakdown voltage low-frequency and low-noise amplification

Features

- \bullet High collector-emitter voltage (Base open) $\,V_{CEO}$
- Low noise voltage NV
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing.

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage	2SD2240	V _{CBO}	150	V
(Emitter open)	2SD2240A		185	
Collector-emitter voltage	2SD2240	V _{CEO}	150	V
(Base open)	2SD2240A		185	
Emitter-base voltage (Col	V _{EBO}	5	V	
Collector current	I _C	50	А	
Peak collector current	I _{CP}	100	А	
Collector power dissipation	P _C	125	mW	
Junction temperature	Tj	125	°C	
Storage temperature	T _{stg}	-55 to +125	°C	



Marking Symbol:

• 2SD2240: P

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

Parameter		Symbol	Conditions	Min	Тур	Max	Unit
Collector-emitter voltage	2SD2240	V _{CEO}	$I_{C} = 100 \ \mu A, I_{B} = 0$	150			V
(Base open)	2SD2240A			185			
Emitter-base voltage (Collector open)		V _{EBO}	$I_E = 10 \ \mu A, \ I_C = 0$	5			V
Collector-base cutoff current (Emitter open)		I _{CBO}	$V_{CB} = 100 \text{ V}, I_E = 0$			1	μΑ
Forward current transfer ratio *		h _{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 10 \text{ mA}$	130		330	
Collector-emitter saturation	voltage	V _{CE(sat)}	$I_{\rm C} = 30 \text{ mA}, I_{\rm B} = 3 \text{ mA}$			1	V
Transition frequency		f _T	$V_{CB} = 10 \text{ V}, I_E = -10 \text{ mA}, f = 200 \text{ MHz}$		150		MHz
Collector output capacitance		C _{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2.3		pF
(Common base, input open circuited)							
Noise voltage		NV	$V_{CE} = 10 \text{ V}, I_C = 1 \text{ mA}, G_V = 80 \text{ dB}$		150		mV
			$R_g = 100 \text{ k}\Omega$, Function = FLAT				

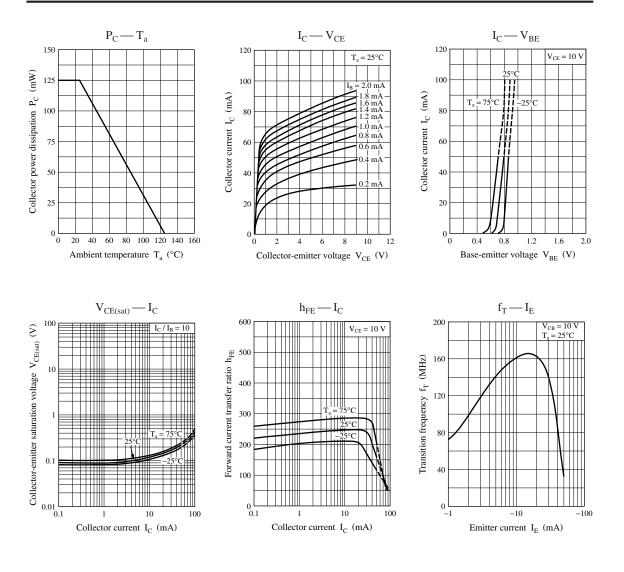
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

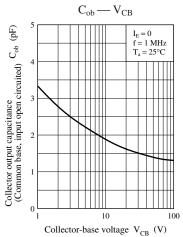
2. *: Rank classification

Rank	Q	R		
h _{FE}	130 to 220	185 to 330		

^{• 2}SD2240A: L

Panasonic





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