0.45+0.15

Emitter

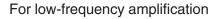
2

 0.45_{-0}^{+0}

2.5

Unit: mm 4.0±0.2

2SD1010 Silicon NPN epitaxial planar type

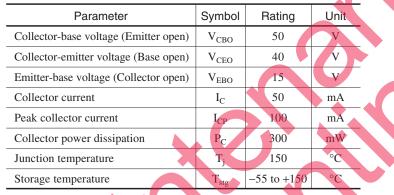


Features

4

- High forward current transfer ratio h_{FE}
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- High emitter-base voltage (Collector open) V_{EBO}
- Low noise voltage NV

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

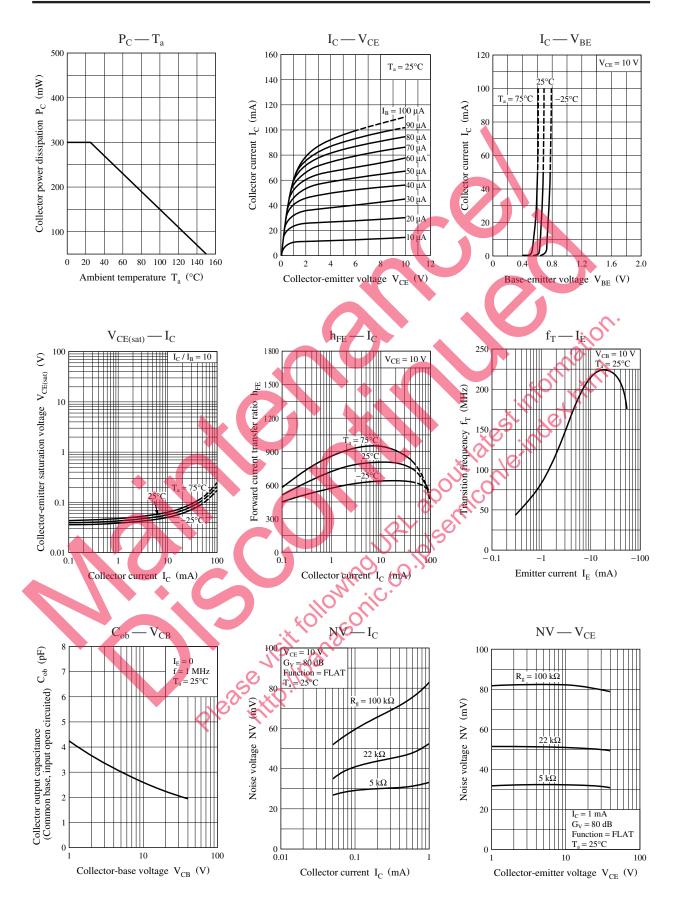


Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Collector current	I _C	50 mA		<u></u>	×2:	Collector				
Peak collector current	I _{CP}	100 mA	٠		3: TO-92-B	Base 1 Package				
Collector power dissipation	P _C	300 mW	Ś	~ ze		1 I ackage				
Junction temperature	ction temperature T_j 150 °C									
Storage temperature T_{stg} -55 to +150 °C										
Peak collector currentIcp100mATO-92-B1 PackageCollector power dissipation P_C 300mWTO-92-B1 PackageJunction temperature T_j 150°CStorage temperature T_{stg} -55 to +150°CElectrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$ P_c P_c										
Parameter	Symbol	Conditions	Min	Тур	Мах	Unit				
Collector-base voltage (Emitter open)	V_{CBO} $I_{C} = 10 \mu A$, $I_{E} = 0$		50			V				
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm CEO} \qquad I_{\rm C} = 1 \text{ mA}, I_{\rm B} = 0 \text{ C}$				V				
Emitter-base voltage (Collector open)	V_{EBO} I _E = 10 µA, I _C = 0		15			V				
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = 20$ V, $I_E = 0$			0.1	μΑ				
Collector-emitter cutoff current (Base open)	I_{CEO} $V_{CE} = 20$ V, $I_B = 0$				1	μΑ				
Forward current transfer ratio *	h _{FE}	$V_{CE} = 10 \text{ V}, I_C = 2 \text{ mA}$			2 0 0 0	_				
Collector-emitter saturation voltage $V_{CE(sat)}$ $I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$				0.05	0.2	V				
Transition frequency	Υ _R			200		MHz				
Noise voltage	NV	$V_{CE} = 10 \text{ V}, I_{C} = 1 \text{ mA}, G_{V} = 80 \text{ dB}$		80		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	R	S	Т
$h_{\rm FE}$	400 to 800	600 to 1 200	1 000 to 2 000



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