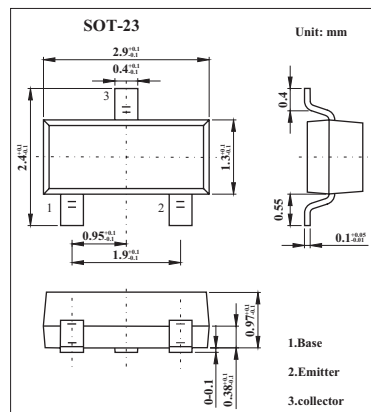


# 2SD2114K

### ■ Features

- High DC current gain.
- High emitter-base voltage.
- Low VCE (sat).



### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	25	V
Collector-emitter voltage	V <sub>CEO</sub>	20	V
Emitter-base voltage	V <sub>EB0</sub>	12	V
Collector current	I <sub>c</sub>	0.5	A
		1 *	
Collector power dissipation	P <sub>c</sub>	0.2	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

\* Single pulse P<sub>w</sub>=100ms.

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV <sub>CB0</sub>	I <sub>c</sub> =10μA	25			V
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>c</sub> =1mA	20			V
Emitter-base breakdown voltage	BV <sub>EB0</sub>	I <sub>E</sub> =10μA	12			V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> =20V			0.5	μA
Emitter cutoff current	I <sub>EB0</sub>	V <sub>EB</sub> =10V			0.5	μA
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> /I <sub>B</sub> =500mA/20mA		0.18	0.4	V
DC current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> =3V, I <sub>c</sub> =10mA	820		2700	
Output capacitance *	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>E</sub> = -50mA, f=100MHz		350		MHz
Transition frequency	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		8.0		pF
Output On-resistance	R <sub>on</sub>	I <sub>B</sub> =1mA, V <sub>i</sub> =100mV(rms), f=1kHz		0.8		Ω

\* Measured using pulse current.

### ■ hFE Classification

Marking	BB	
	V	W
hFE	820~1800	1200~2700