

急出货

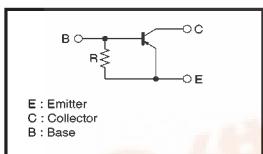
Digital transistors (built-in resistor)

DTB114GK

●Features

- The built-in bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input, and parasitic effects are almost completely eliminated.
- Only the on / off conditions need to be set for operation, making device design easy.
- Higher mounting densities can be achieved.

●Circuit schematic



●Electrical characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	-50	—	—	V	$I_c = -50 \mu\text{A}$
Collector-emitter breakdown voltage	BV_{CEO}	-50	—	—	V	$I_c = 1\text{mA}$
Emitter-base breakdown voltage	BV_{EBO}	-5	—	—	V	$I_e = -720 \mu\text{A}$
Collector cutoff current	I_{CBO}	—	—	-0.5	μA	$\text{V}_{\text{CB}} = -30\text{V}$
Emitter cutoff current	I_{EBO}	-300	—	-580	μA	$\text{V}_{\text{EE}} = -4\text{V}$
Collector-emitter saturation voltage	$\text{V}_{\text{CE(sat)}}$	—	—	-0.3	V	$I_c/I_{\text{EBO}} = 50\text{mA}/2.5\text{mA}$
DC current transfer ratio	h_{FE}	56	—	—	—	$I_c = 100\text{mA}, \text{V}_{\text{CE}} = -5\text{V}$
Emitter-base resistance	R	7	10	13	k Ω	—
Transition frequency	f _r	—	200	—	MHz	$\text{V}_{\text{CE}} = -10\text{V}, I_e = 5\text{mA}, f = 100\text{MHz}$

* Transition frequency of the device.

(96-292-B114G)

●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_c	-500	mA
Collector power dissipation	P _c	200	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~+150	°C

●Package, marking, and packaging specifications

Part No.	DTB114GK
Package	SMT3
Marking	L14
Packaging code	T146
Basic ordering unit (pieces)	3000

(96-292-B114G)

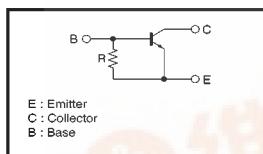
Digital transistors (built-in resistor)

DTD114GK

●Features

- The built-in bias resistors consist of thin-film resistors with complete isolation to allow negative biasing of the input, and parasitic effects are almost completely eliminated.
- Only the on / off conditions need to be set for operation, making device design easy.
- Higher mounting densities can be achieved.

●Circuit schematic



●Electrical characteristics ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV_{CBO}	50	—	—	V	$I_c = 50 \mu\text{A}$
Collector-emitter breakdown voltage	BV_{CEO}	50	—	—	V	$I_c = 1\text{mA}$
Emitter-base breakdown voltage	BV_{EBO}	5	—	—	V	$I_e = 720 \mu\text{A}$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$\text{V}_{\text{CB}} = 50\text{V}$
Emitter cutoff current	I_{EBO}	300	—	580	μA	$\text{V}_{\text{EE}} = 4\text{V}$
Collector-emitter saturation voltage	$\text{V}_{\text{CE(sat)}}$	—	—	0.3	V	$I_c/I_{\text{EBO}} = 50\text{mA}/2.5\text{mA}$
DC current transfer ratio	h_{FE}	56	—	—	—	$I_c = 100\text{mA}, \text{V}_{\text{CE}} = 5\text{V}$
Emitter-base resistance	R	7	10	13	k Ω	—
Transition frequency	f _r	—	200	—	MHz	$\text{V}_{\text{CE}} = 10\text{V}, I_e = -50\text{mA}, f = 100\text{MHz}$

●Absolute maximum ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_c	500	mA
Collector power dissipation	P _c	200	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~+150	°C

●Package, marking, and packaging specifications

Part No.	DTD114GK
Package	SMT3
Marking	L24
Packaging code	T146
Basic ordering unit (pieces)	3000

(96-360-D114G)