

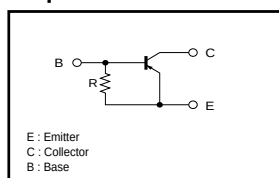
Digital transistors (built-in resistor)

DTA114GUA / DTA114GKA / DTA114GSA

●Features

- 1) 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.
- 2) Only the on / off conditions need to be set for operation, making device design easy.
- 3) Higher mounting densities can be achieved.

●Equivalent circuit



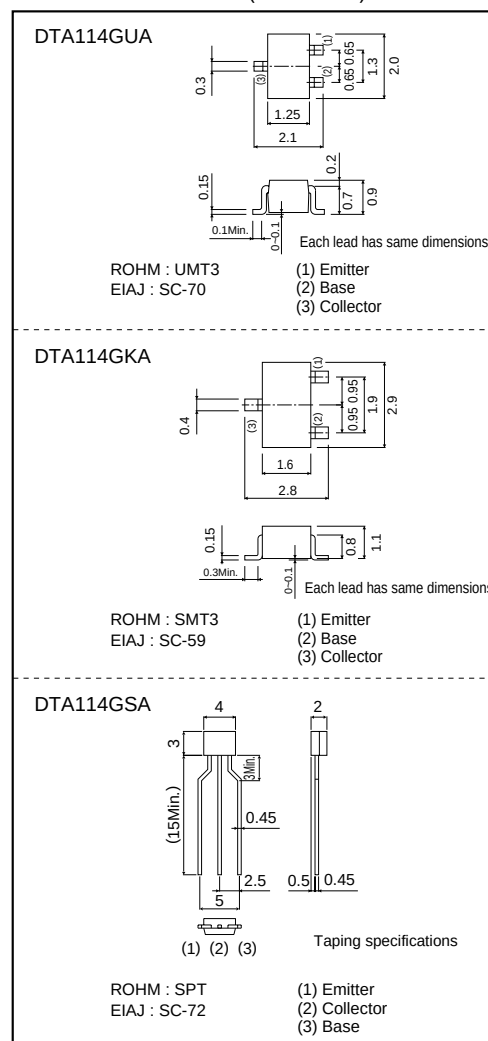
●Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Collector-base voltage	V _{CB0}	-50	V
Collector-emitter voltage	V _{CE0}	-50	V
Emitter-base voltage	V _{EB0}	-5	V
Collector current	I _C	-100	mA
Collector Power dissipation	P _C	200	mW
		300	
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55~+150	°C

●Package, marking, and packaging specifications

Type	DTA114GUA	DTA114GKA	DTA114GSA
Package	UMT3	SMT3	SPT
Marking	K14	K14	-
Packaging code	T106	T146	TP
Basic ordering unit (pieces)	3000	3000	5000

●External dimensions (Units : mm)



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	-50	-	-	V	I _C =-50μA
Collector-emitter breakdown voltage	BV _{CE0}	-50	-	-	V	I _C =-1mA
Emitter-base breakdown voltage	BV _{EB0}	-5	-	-	V	I _E =-720μA
Collector cutoff current	I _{CB0}	-	-	-0.5	μA	V _{CB} =-50V
Emitter cutoff current	I _{EB0}	-300	-	-580	μA	V _{EB} =-4V
Collector-emitter saturation voltage	V _{CE(sat)}	-	-	-0.3	V	I _C =-10mA, I _E =-0.5mA
DC current transfer ratio	h _{FE}	30	-	-	-	I _C =-5mA, V _{CE} =-5V
Emitter-base resistance	R	7	10	13	kΩ	-
Transition frequency	f _T	-	250	-	MHz	V _{CE} =-10V, I _E =5mA, f=100MHz *

* Transition frequency of the device.