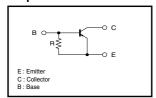
Digital transistors (built-in resistor)

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



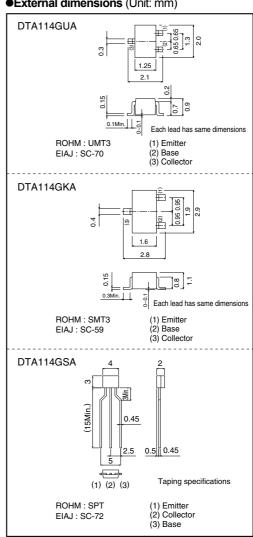
● Absolute maximum ratings (Ta=25°C)

	Symbol	Limits	Unit	
Collector-base v	Vсво	-50	V	
Collector-emitter	VCEO	-50	٧	
Emitter-base vol	VEBO	-5	٧	
Collector current		lc	-100	mA
Collector Power dissipation	DTA114GUA / DTA114GKA	Pc	200	mW
	DTA114GSA	FC	300	11100
Junction temperature		Tj	150	°C
Storage temperature		Tstg	-55 to +150	°C

Package, marking, and packaging specifications

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

●External dimensions (Unit: mm)



●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-50	_	_	٧	I _C = -50μA
Collector-emitter breakdown voltage	BV _{CEO}	-50	_	_	٧	I _C = -1mA
Emitter-base breakdown voltage	BV _{EBO}	-5	_	_	٧	I _E = -720μA
Collector cutoff current	Ісво	_	_	-0.5	μΑ	V _{CB} = -50V
Emitter cutoff current	I _{EBO}	-300	_	-580	μΑ	V _{EB} = -4V
Collector-emitter saturation voltage	V _{CE(sat)}	_	_	-0.3	٧	I _C = -10mA, I _B = -0.5mA
DC current transfer ratio	hfE	30	_	-	_	Ic= -5mA, Vc== -5V
Emitter-base resistance	R ₁	7	10	13	kΩ	_
Transition frequency	f⊤	_	250	_	MHz	Vc==-10V, Ie=50mA, f=100MHz *

^{*}Transition frequency of the device.

•Electrical characteristics curves

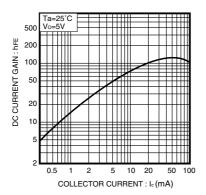


Fig.1 DC Current gain vs. Collector Current

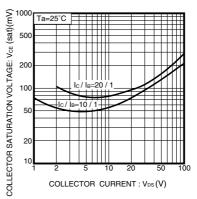


Fig.2 Collector-emitter saturation voltage vs. Collector Current

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