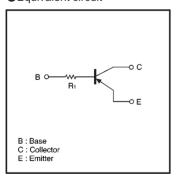
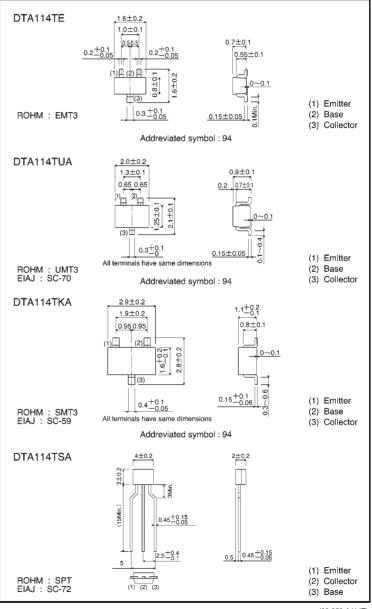
# Digital transistors (built in resistor) DTA114TE / DTA114TUA / DTA114TKA / DTA114TSA

#### Features

- Built-in circuit enables the configuration of an inverter circuit without connecting external input resistors (see equivalent circuit).
- The bias resistors consist of thinfilm resistors with complete isolation to allow positive biasing of the input. They also have the advantage of almost completely eliminating parasitic effects.
- Only the on/off conditions need to be set for operation, making device design easy.
- StructurePNP digital transistor(With single built in resistor)
- Equivalent circuit



External dimensions (Units: mm)



# ●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol		Unit			
		E	UA	KA	SA	Unit
Collector-base voltage	Vсво		V			
Collector-emitter voltage	VCEO		٧			
Emitter-base voltage	VEBO		V			
Collector current	lc		mA			
Collector power dissipation	Pc	150	20	00	300	mW
Junction temperature	Tj	150				$^{\circ}$
Storage temperature	Tstg		C			

## ●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-50	_	_	٧	Ic=-50 μ A
Collector-emitter breakdown voltage	BVceo	-50	_	_	٧	Ic=-1mA
Emitter-base breakdown voltage	BVEBO	-5	_	_	٧	IE=-50 μ A
Collector cutoff current	Ісво	_	_	-0.5	μΑ	V <sub>CB</sub> =-50V
Emitter cutoff current	IEBO	_	_	-0.5	μΑ	V <sub>EB</sub> =-4V
Collector-emitter saturation voltage	VCE(sat)	_	_	-0.3	٧	Ic/IB=-10mA/-1mA
DC current transfer ratio	hFE	100	250	600	_	VcE=-5V, Ic=-1mA
Input resistance	R <sub>1</sub>	7	10	13	kΩ	_
Transition frequency	fτ	_	250	_	MHz	Vc=-10V, I==5mA, f=100MHz *

<sup>\*</sup> Transition frequency of the device

# Packaging specifications

	Package	EMT3	UMT3	SMT3	SPT
	Package type	Taping	Taping	Taping	Taping
	Code	TL	T106	T146	TP
Part No.	Basic ordering unit (pieces)	3000	3000	3000	5000
DTA114TE		0	_	_	_
DTA114TUA	١	_	0	_	_
DTA114TKA	\	_	_	0	_
DTA114TSA	\	_	_	_	0

### Electrical characteristic curves

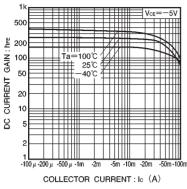


Fig.1 DC current gain vs. collector current

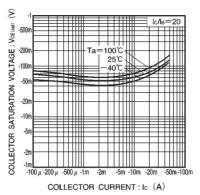


Fig.2 Collector-emitter saturation voltage vs. collector current