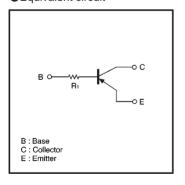
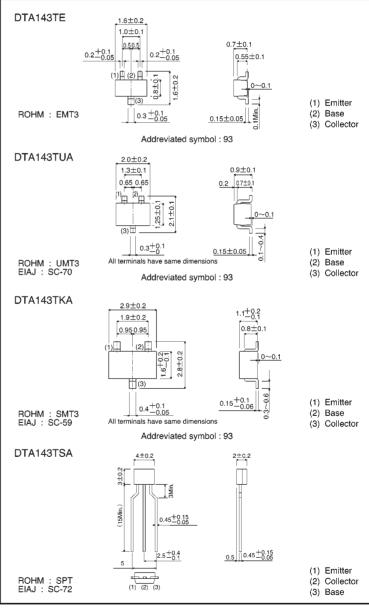
Digital transistors (built in resistor) DTA143TE / DTA143TUA / DTA143TKA / DTA143TSA

Features

- Built-in bias resistors enable 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.
- ●Structure PNP digital transistor (Built-in resistor type)
- Equivalent circuit



External dimensions (Units: mm)



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol		Unit			
		E	UA	KA	SA	Oill
Collector-base voltage	Vсво		V			
Collector-emitter voltage	VCEO		V			
Emitter-base voltage	VEBO		٧			
Collector current	Ic		mA			
Collector power dissipation	Pc	150	20	200		mW
Junction temperature	Tj		C			
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	_	_	V	Ic=-1mA
Emitter-base breakdown voltage	ВУево	-5	_	_	V	I _E =-50 μ A
Collector cutoff current	Ісво	_	_	-0.5	μΑ	V _{CB} =-50V
Emitter cutoff current	IEBO	_	_	-0.5	μΑ	V _{EB} =-4V
Collector-emitter saturation voltage	VCE(sat)	_	_	-0.3	٧	Ic/Iв=-5mA/-0.25mA
DC current transfer ratio	hfe	100	250	600	_	Ic=-1mA, VcE=-5V
Input resistance	R ₁	3.29	4.7	6.11	kΩ	_
Transition frequency	fτ	_	250	_	MHz	Vc=-10V, I==5mA, f=100MHz *

^{*} Transition frequency of the device

Packaging specifications

	Package	EMT3	UMT3	SMT3	SPT
	Packaging type	Taping	Taping	Taping	Taping
	Code	TL	T106	T146	TP
Part No.	Basic ordering unit (pieces)	3000	3000	3000	5000
DTA143TE		0	_	_	_
DTA143TUA	١	_	0	_	_
DTA143TKA		_	_	0	_
DTA143TSA		_	_	_	0

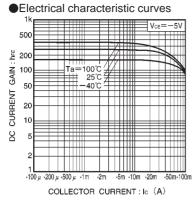


Fig.1 DC current gain vs. collector current

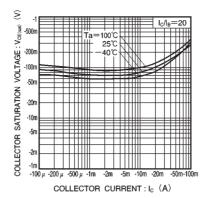


Fig.2 Collector-emitter saturation voltage vs. collector current