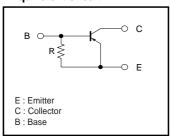
# Digital transistors (built-in resistor) DTA115GUA / DTA115GKA

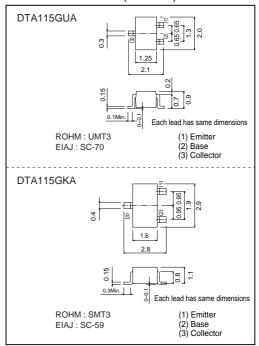
# ● Features

- 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.
- 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



#### ●External dimensions (Unit : mm)



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

Parameter	Symbol Limits		Unit	
Collector-base voltage	V <sub>CBO</sub> -50		V	
Collector-emitter voltage	Vceo –50		V	
Emitter-base voltage	Vево	-5	V	
Collector current	Ic	-100	mA	
Collector power dissipation	Pc	200	mW	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 to +150	°C	

# ● Package, marking, and packaging specifications

Туре	DTA115GUA	DTA115GKA
Package	UMT3	SMT3
Marking	K19	K19
Packaging code	T106	T146
Basic ordering unit (pieces)	3000	3000

# ●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Collector-base breakdown voltage	ВУсво	-50	_	-	V	Ic=-50μA
Collector-emitter breakdown voltage	BVceo	-50	-	_	V	Ic=-1mA
Emitter-base breakdown voltage	ВУЕВО	-5	-	_	V	I <sub>E</sub> = -72μA
Collector cutoff current	Ісво	-	-	-0.5	μΑ	Vcb= -50V
Emitter cutoff current	Іево	-30	_	-58	μΑ	V <sub>EB</sub> = -4V
Collector-emitter saturation voltage	VCE(sat)	-	-	-0.3	V	Ic= -5mA, I <sub>B</sub> = -0.25mA
DC current transfer ratio	hfe	82	-	_	_	Ic=-5mA, Vc==-5V
Emitter-base resistance	R	70	100	130	kΩ	-
Transition frequency	f⊤	-	250	_	MHz	Vc=-10V, Ie=5mA, f=100MHz *

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

# •Electrical characteristics curves

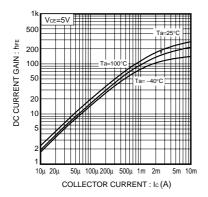


Fig.1 DC current gain vs. Collector current

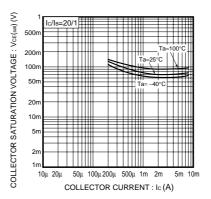


Fig.2 Collector-Emitter saturation voltage vs. Collector current

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