DTC115TM / DTC115TE / DTC115TUA / DTC115TKA / DTC115TSA

External dimensions (Units : mm)

(1) Base

(2) Emitter(3) Collector

DTC115TM

ROHM : VMT3

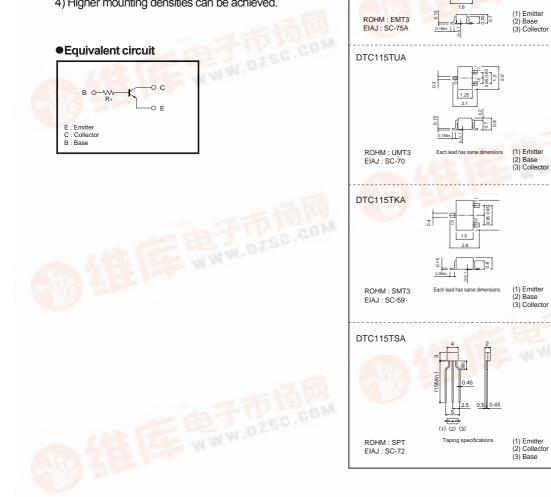
DTC115TE

Digital transistors (built in resistor) DTC115TM / DTC115TE / DTC115TUA / DTC115TKA / DTC115TSA

Features

Transistors

- 1) Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors.
- 2) The bias resistors consist of thin-film resistors with complete isolation to allow negative biasing of the input, and parasitic effects are almost completely eliminated.
- 3) Only the on / off conditions need to be set for operation, making device design easy.
- 4) Higher mounting densities can be achieved.







DTC115TM / DTC115TE / DTC115TUA / DTC115TKA / DTC115TSA

Transistors

•Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit		
Collector-base voltage		Vсво	50	V		
Collector-emitter voltage		VCEO	50	V		
Emitter-base voltage		Vebo	5	V		
Collector current		lc	100	mA		
Collector power dissipation	DTC115TM / DTC115TE		150	mW		
	DTC115TUA / DTC115TKA	Pc	200			
	DTC115TSA		300			
Junction temperature		Tj	150	°C		
Storage temperature		Tstg	-55~+150	°C		

•Packaging, marking, and packaging specifications

Part No.	DTC115TM	DTC115TE	DTC115TUA	DTC115TKA	DTC115TSA
Package	VMT3	EMT3	UMT3	SMT3	SPT
Marking	09	09	09	09	-
Packaging code	T2L	TL	T106	T146	TP
Basic ordering unit (pieces)	8000	3000	3000	3000	5000

•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	ВVево	5	-	-	V	Ιε=50μΑ	
Collector cutoff current	Ісво	-	-	0.5	μΑ	Vcb=50V	
Emitter cutoff current	Іево	-	-	0.5	μΑ	VEB=4V	
Collector-emitter saturation voltage	VCE(sat)	-	-	0.3	V	Ic/IB=1mA/0.1mA	
DC current transfer ratio	hfe	100	250	600	-	Ic=1mA, VcE=5V	
Input resistance	R1	70	100	130	kΩ	-	
Transition frequency	fτ	-	250	-	MHz	Vce=10V, Ie=-5mA, f=100MHz *	

* Transition frequency of the device.

Appendix

Notes

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