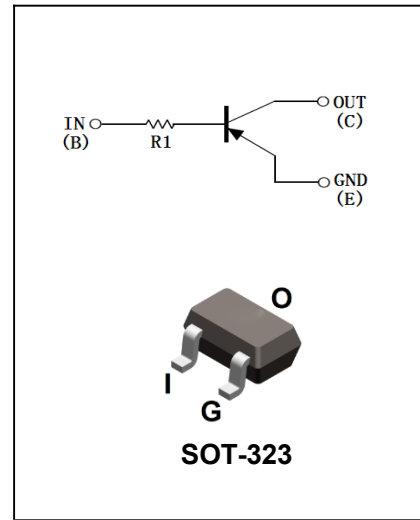


Digital Transistor

DTA(R₁-only SERIES)UA

FEATURES

- Epitaxial planar die construction
- Complementary NPN types available(DTC)
- Built-in biasing resistor, R₁ only
- Also available in lead free version



APPLICATIONS

- The PNP style digital transistor

ORDERING INFORMATION

Type No.	Marking	Package Code
DTA114TUA	94	SOT-323
DTA143TUA	93	SOT-323
DTA144TUA	96	SOT-323

MAXIMUM RATING @ T_A = 25°C unless otherwise specified

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	-50	V
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _{C(Max.)}	Collector Current	-100	mA
P _D	Power Dissipation	200	mW
R _{θJA}	Thermal Resistance, Junction to Ambient Air *1	280	°C/W
R _{θJC}	Thermal Resistance, Junction to Case *1	160	°C/W
R _{θJL}	Thermal Resistance, Junction to Lead *1	210	°C/W
T _J , T _{STG}	Operating and Storage and Temperature Range	-55 to +150	°C

Note 1: The data tested by surface mounted on a 15mm * 15mm * 1mm FR4-epoxy P.C.B



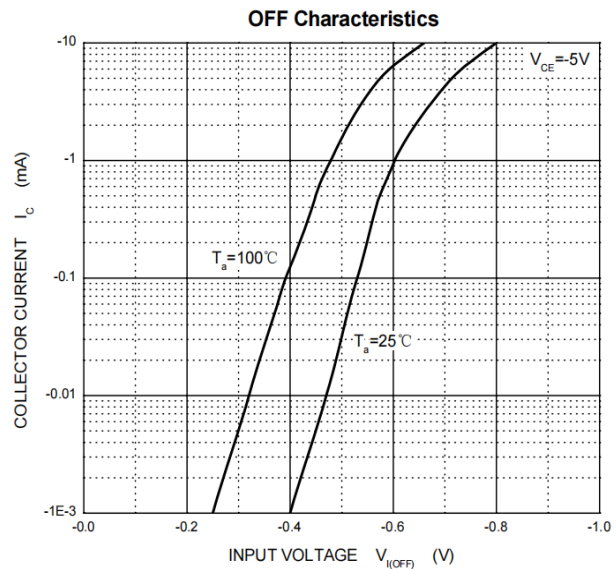
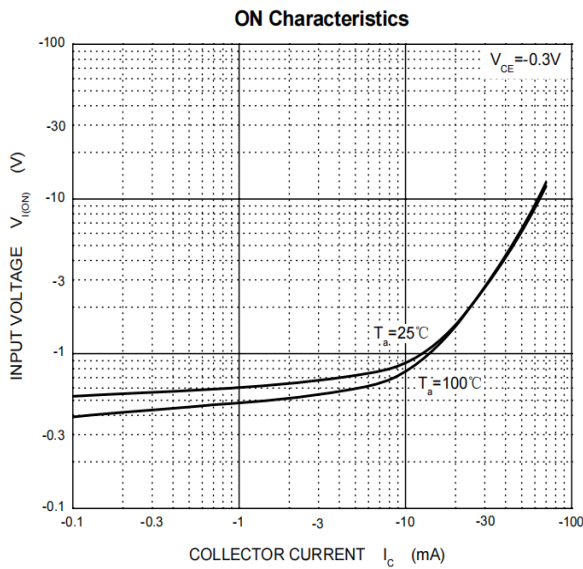
Digital Transistor

DTA(R₁-only SERIES)UA

ELECTRICAL CHARACTERISTICS @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-Base breakdown Voltage	BV _{CBO}	I _C =-50μA	-50			V
Collector-Emitter breakdown Voltage	BV _{CEO}	I _C =-1mA	-50			V
Emitter-Base breakdown Voltage	BV _{EBO}	I _E =-50μA	-5			V
Collector cutoff Current	I _{CBO}	V _{CB} =-50V	-	-	-0.5	μA
Emitter cutoff Current	I _{EBO}	V _{EB} =-4V	-	-	-0.5	μA
Collector-Emitter saturation voltage DTA114TUA DTA143TUA DTA144TUA	V _{CE(sat)}	I _C /I _B =-10mA/-1mA I _C /I _B =-5mA/-0.25mA I _C /I _B =-5mA/-0.5mA			-0.3	V
DC Current Gain	h _{FE}	I _C =-1mA, V _{CE} =-5V	100	250	600	
Input Resistor(R ₁) DTA114TUA DTA143TUA DTA144TUA	R ₁		7 3.29 32.9	10 4.7 47	13 6.11 61.1	KΩ
Input Resistor(R ₁)Tolerance	ΔR ₁		-30		+30	%
Transition frequency	f _T	V _{CE} =-10V, I _E =5mA, f=100MHz	-	250	-	MHz

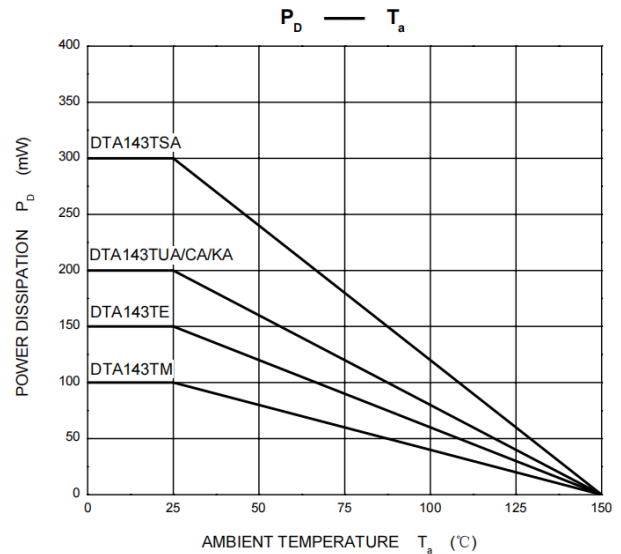
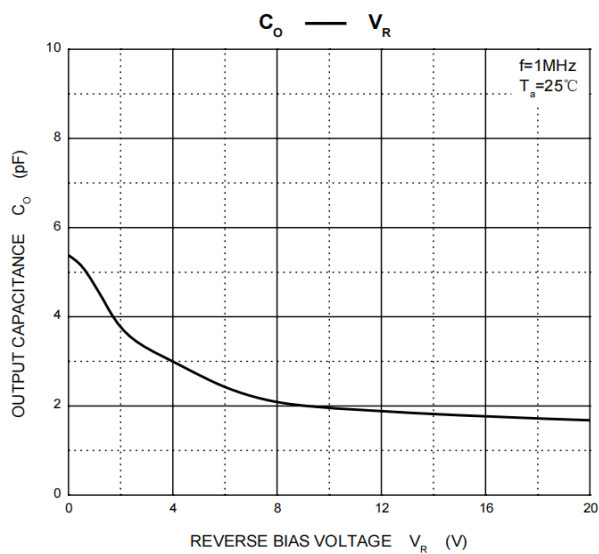
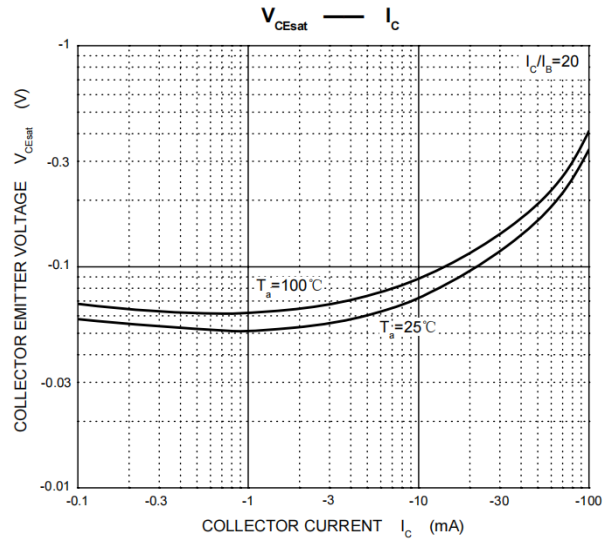
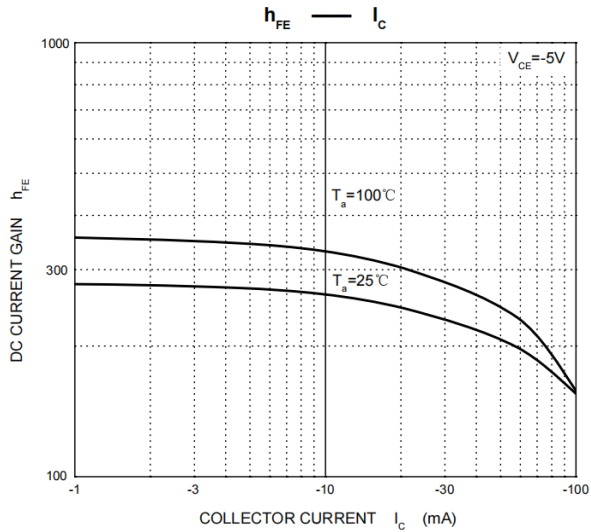
TYPICAL CHARACTERISTICS @ T_a=25°C unless otherwise specified





Digital Transistor

DTA(R1-only SERIES)UA



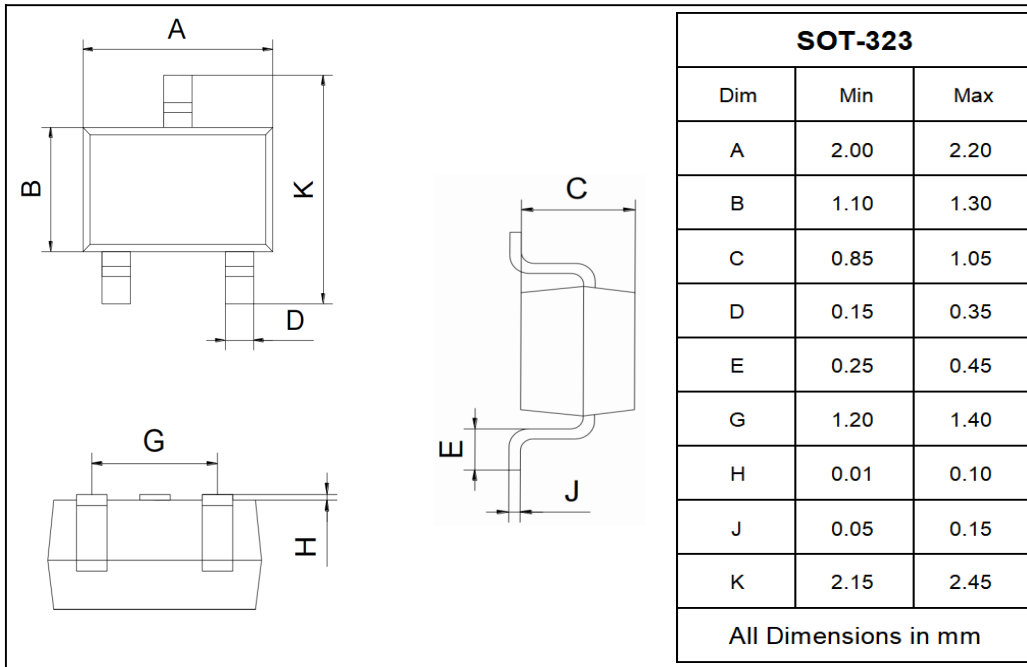
Digital Transistor

DTA(R₁-only SERIES)UA

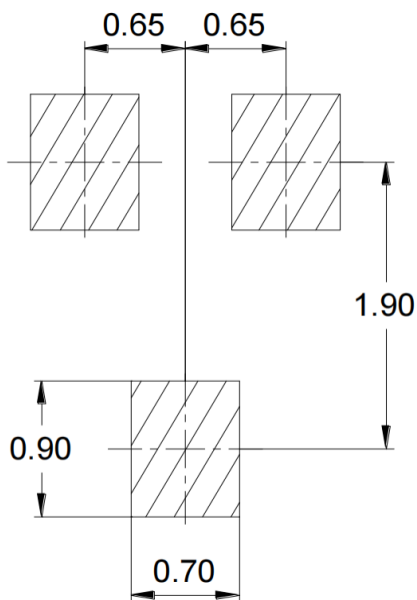
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
DTAXXTUA	SOT-323	3000 pcs / Tape & Reel