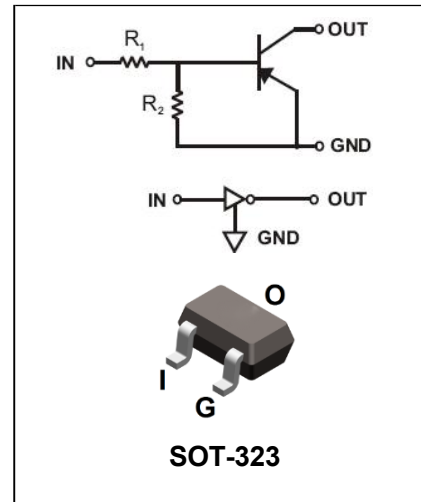


Digital Transistor

DTA(R₁ ≠ R₂ SERIES)UA

FEATURES

- Epitaxial planar die construction
- Complementary NPN types available(DTC)
- Built-in biasing resistors, R₁ ≠ R₂
- Also available in lead free version



APPLICATIONS

- The PNP style digital transistor

ORDERING INFORMATION

Type No.	Marking	Package Code
DTA113ZUA	E11	SOT-323
DTA114WUA	74	SOT-323
DTA114YUA	54	SOT-323
DTA123JUA	132	SOT-323
DTA123YUA	52	SOT-323
DTA143XUA	33	SOT-323
DTA143ZUA	113	SOT-323

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V _{CC}	Supply Voltage	-50	V
V _{IN}	Input Voltage	DTA113ZUA	+5 to -10
		DTA114WUA	+10 to -30
		DTA114YUA	+6 to -40
		DTA123JUA	+5 to -12
		DTA123YUA	+5 to -12
		DTA143XUA	+7 to -20
		DTA143ZUA	+5 to -30
I _b	Output Current	DTA113ZUA	-100
		DTA114WUA	-100
		DTA114YUA	-70
		DTA123JUA	-100
		DTA123YUA	-100
		DTA143XUA	-100
		DTA143ZUA	-100
Symbol	Parameter	Value	Units
I _c (Max.)	Output current	ALL	-100
			mA



Digital Transistor

DTA(R₁ ≠ R₂ SERIES)UA

P _D	Power Dissipation	200	mW
R _{θJA}	Thermal Resistance, Junction to Ambient Air	280	°C/W
T _j , T _{stg}	Operating and Storage and Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Input Voltage	DTA113ZUA DTA114WUA DTA114YUA DTA123JUA DTA123YUA DTA143XUA DTA143ZUA	V _{I(off)} V _{CC} =-5V, I _O =-100μA	-0.3 -0.8 -0.3 -0.5 -0.3 -0.3 -0.5	-	-	V
Input Voltage	DTA113ZUA DTA114WUA DTA114YUA DTA123JUA DTA123YUA DTA143XUA DTA143ZUA	V _{I(on)} V _O =-0.3V, I _O =-20mA V _O =-0.3V, I _O =-2mA V _O =-0.3V, I _O =-1mA V _O =-0.3V, I _O =-5mA V _O =-0.3V, I _O =-20mA V _O =-0.3V, I _O =-20mA V _O =-0.3V, I _O =-5mA	-	-	-3.0 -3.0 -1.4 -1.1 -3.0 -2.5 -1.3	V
Output Voltage	DTA123JUA DTA143ZUA DTA114YUA ALL Others	V _{O(on)} I _B /I _I =-5mA/-0.25mA I _B /I _I =-10mA/-0.5mA	-	-0.1	-0.3	V
Input Current	DTA113ZUA DTA114WUA DTA114YUA DTA123JUA DTA123YUA DTA143XUA DTA143ZUA	I _I V _I =-5V	-	-	-7.2 -0.88 -0.88 -3.6 -3.8 -1.8 -1.8	mA
Output Current		I _{O(off)} V _{CC} =-50V, V _I =0V	-	-	-0.5	μA
DC Current Gain	DTA113ZUA DTA114WUA DTA114YUA DTA123JUA DTA123YUA DTA143XUA DTA143ZUA	G _I V _O =-5V, I _O =-5mA V _O =-5V, I _O =-10mA V _O =-5V, I _O =-5mA V _O =-5V, I _O =-10mA V _O =-5V, I _O =-10mA V _O =-5V, I _O =-10mA V _O =-5V, I _O =-10mA	33 24 68 80 33 30 80	-	-	

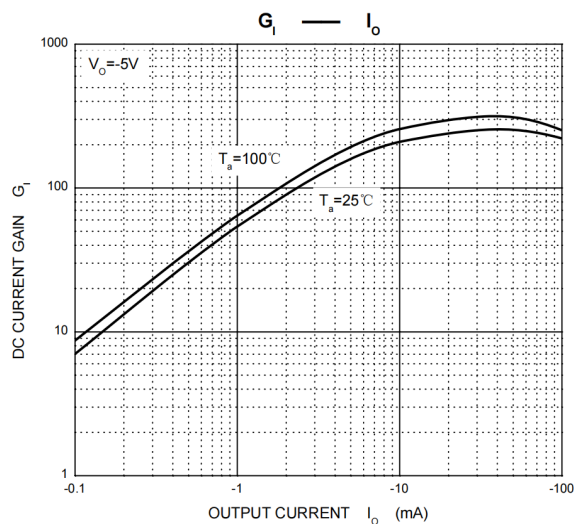
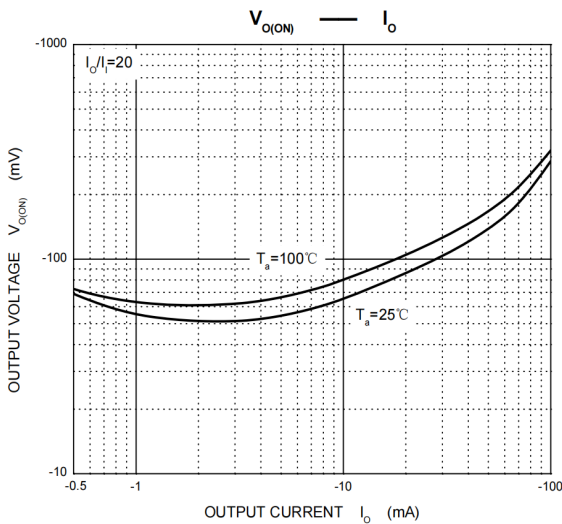
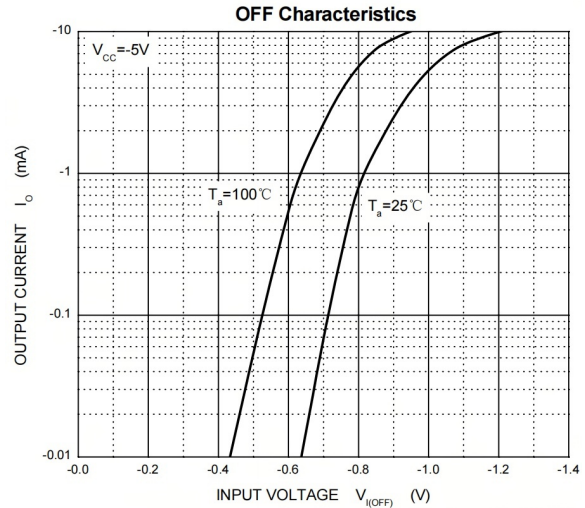
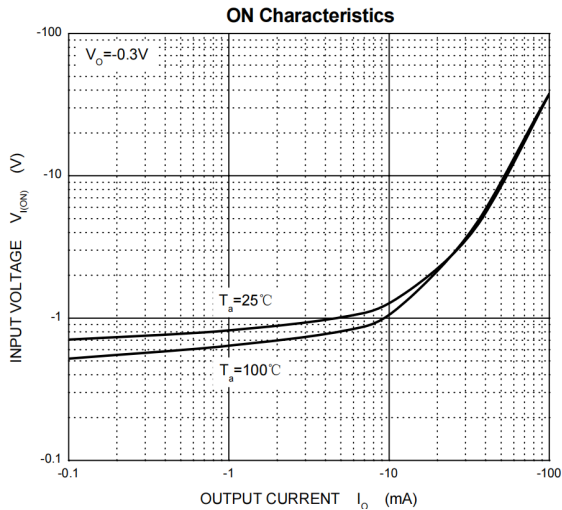


Digital Transistor

DTA(R₁ ≠ R₂ SERIES)UA

Input Resistor	DTA113ZUA DTA114WUA DTA114YUA DTA123JUA DTA123YUA DTA143XUA DTA143ZUA	R ₁ (R ₂)		0.7 7 7 1.54 1.54 3.29 3.29	1(10) 10(4.7) 10(47) 2.2(47) 2.2(10) 4.7(10) 4.7(47)	1.3 13 13 2.86 2.86 6.11 6.11	kΩ
Input Resistor (R ₁) Tolerance		ΔR ₁	-	-30		+30	%
Resistance Ratio Tolerance		ΔR ₂ /R ₁	-	-20		+20	%
Transition frequency		f _T	V _O = -10V, I _O = -5mA, f = 100MHz	-	250	-	MHz

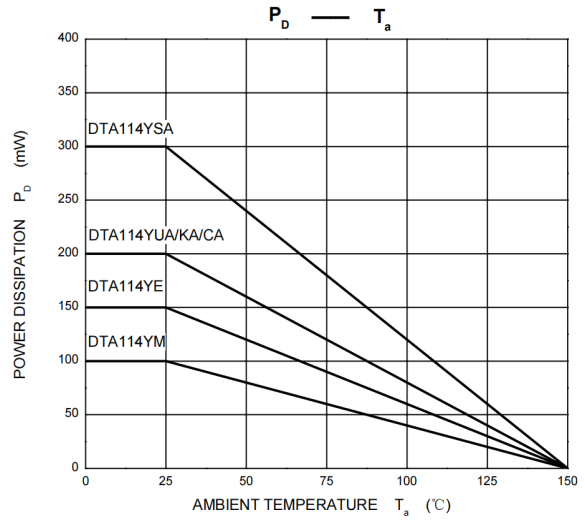
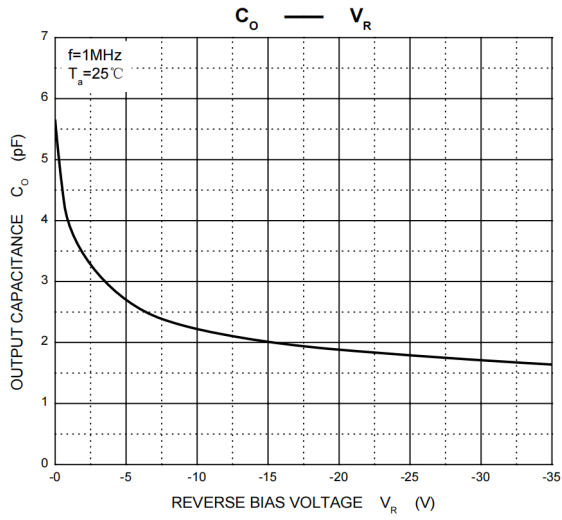
TYPICAL CHARACTERISTICS @ T_a = 25°C unless otherwise specified





Digital Transistor

DTA(R₁ ≠ R₂ SERIES)UA



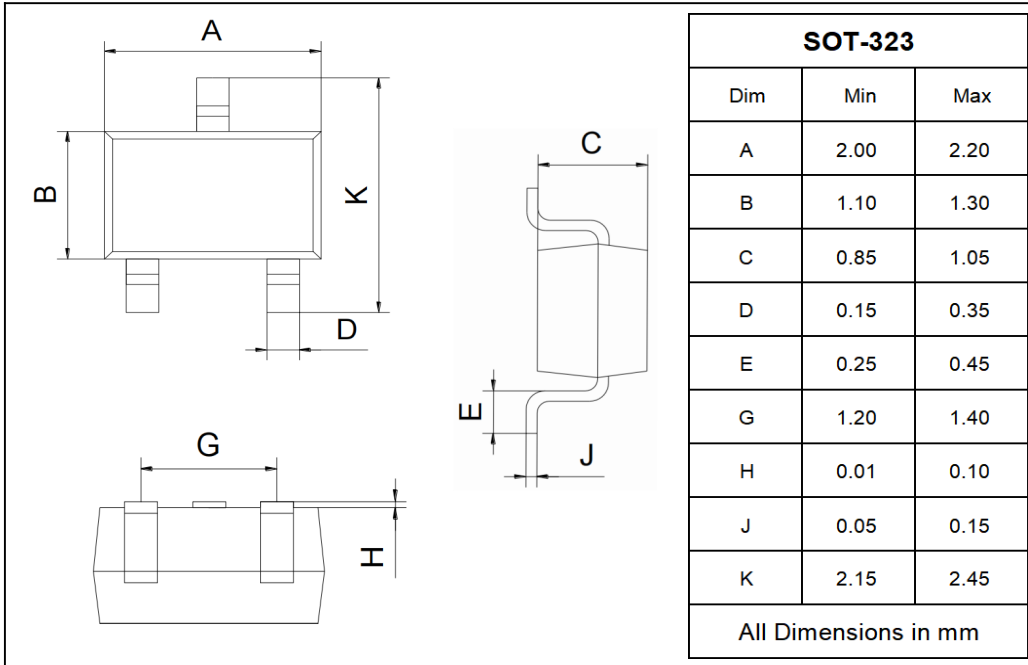
Digital Transistor

DTA(R₁ ≠ R₂ SERIES)UA

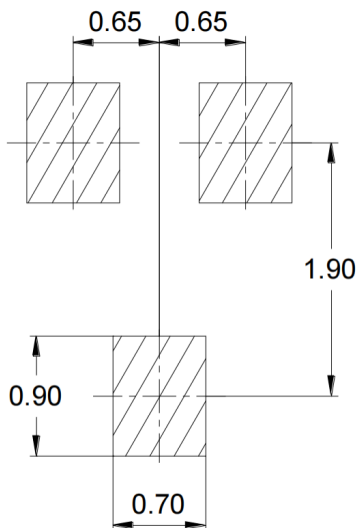
PACKAGE OUTLINE

Plastic surface mounted package

SOT-323



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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