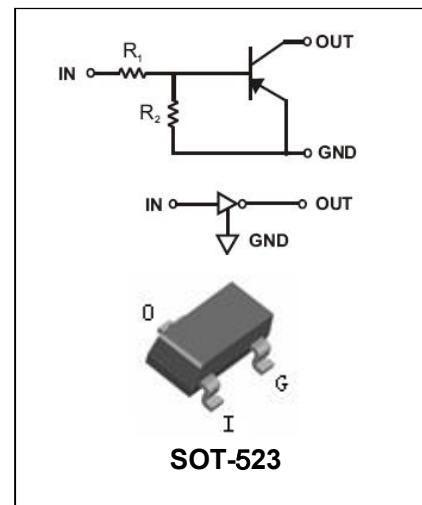


Digital Transistor

DTA(R₁=R₂ SERIES)E

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
DTA114EE	14	SOT-523
DTA124EE	15	SOT-523
DTA143EE	13	SOT-523
DTA144EE	16	SOT-523

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units	
V _{CC}	Supply Voltage	-50	V	
V _{IN}	Input Voltage	DTA114EE	+10 to -40	
		DTA124EE	+10 to -40	
		DTA143EE	+10 to -30	
		DTA144EE	+10 to -40	
I _o	Output Current	DTA114EE	-50	
		DTA124EE	-30	
		DTA143EE	-100	
		DTA144EE	-30	
I _c (Max.)	Output current	ALL	-100	mA
P _D	Power Dissipation	150	mW	
R _{θJA}	Thermal Resistance, Junction to Ambient Air *1	306	°C/W	
R _{θJC}	Thermal Resistance, Junction to Case *1	152	°C/W	
R _{θJL}	Thermal Resistance, Junction to Lead *1	61	°C/W	
T _J	Junction Temperature	-55 to +150	°C	
T _{STG}	Operating and Storage and Temperature Range	-55 to +150	°C	



Digital Transistor

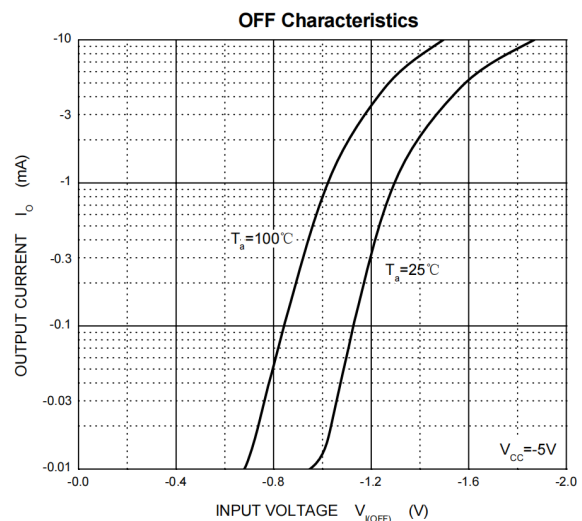
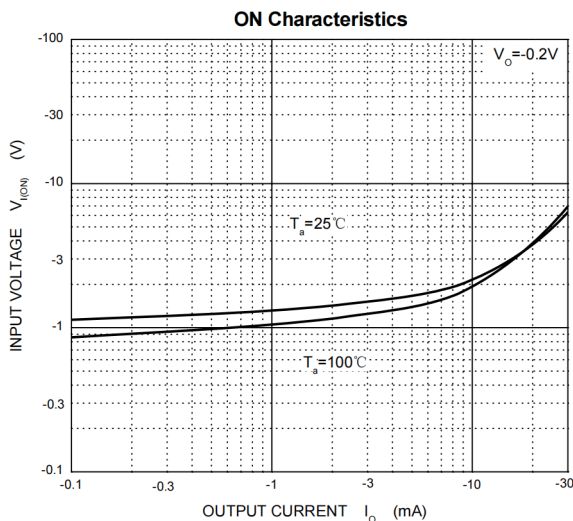
DTA(R₁=R₂ SERIES)E

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT	
Input Voltage	V _{I(off)}	V _{CC} =-5V, I _o =-100μA	-0.5	-1.1	-	V	
Input Voltage	DTA114EE DTA124EE DTA143EE DTA144EE	V _O =-0.3V, I _o =-10mA V _O =-0.2V, I _o =-5mA V _O =-0.3V, I _o =-20mA V _O =-0.3V, I _o =-2mA	-	-1.9	-3		
Output Voltage	V _{O(on)}	I _b /I _i =-10mA/-0.5mA,	-	-0.1	-0.3		V
Input Current	DTA114EE DTA124EE DTA143EE DTA144EE	I _i	V _i =-5V	-	-		-0.88 -0.36 -1.8 -0.18
Output Current	I _{O(off)}	V _{CC} =-50V, V _i =0V	-	-	-0.5	μA	
DC Current Gain	DTA114EE DTA124EE DTA143EE DTA144EE	G _i	V _O =-5V, I _o =-5mA V _O =-5V, I _o =-5mA V _O =-5V, I _o =-10mA V _O =-5V, I _o =-5mA	30 56 30 68	-	-	
Input Resistor	DTA114EE DTA124EE DTA143EE DTA144EE	R ₁ (R ₂)		7 15.4 3.29 32.9	10 22 4.7 47	13 28.6 6.11 61.1	kΩ
Resistance Ratio	R ₂ /R ₁	-	0.8	1	1.2		
Transition frequency	f _T	V _O =-10V, I _o =-5mA, f=100MHz	-	250	-	MHz	

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

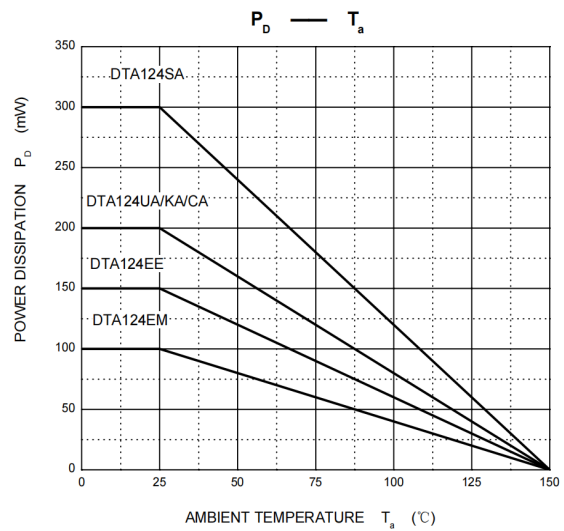
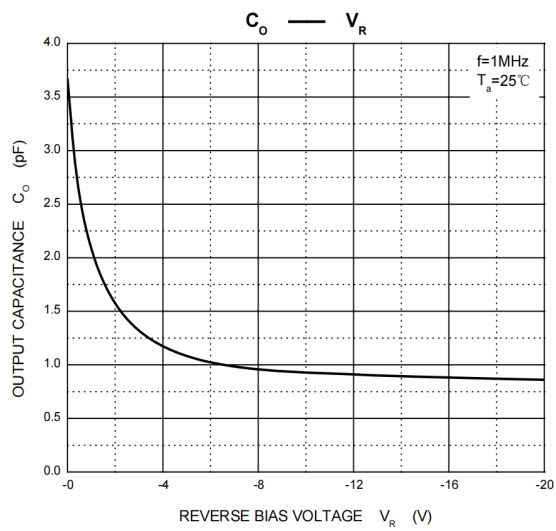
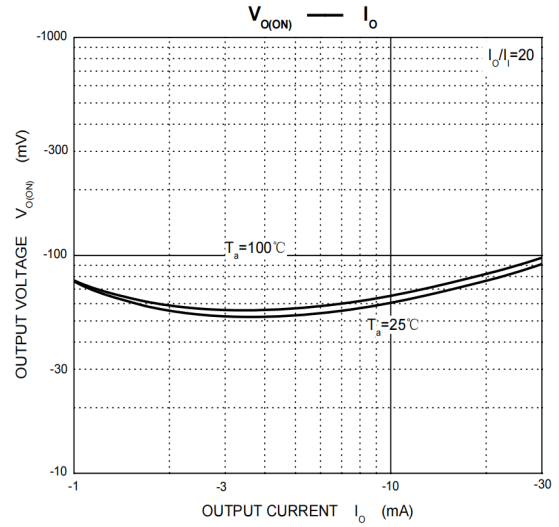
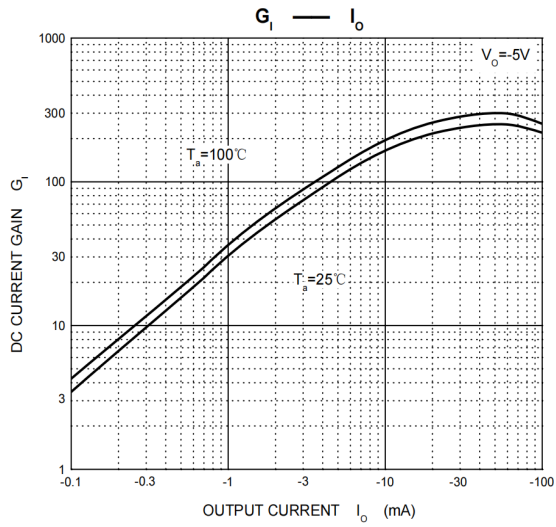
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified





Digital Transistor

DTA(R₁=R₂ SERIES)E

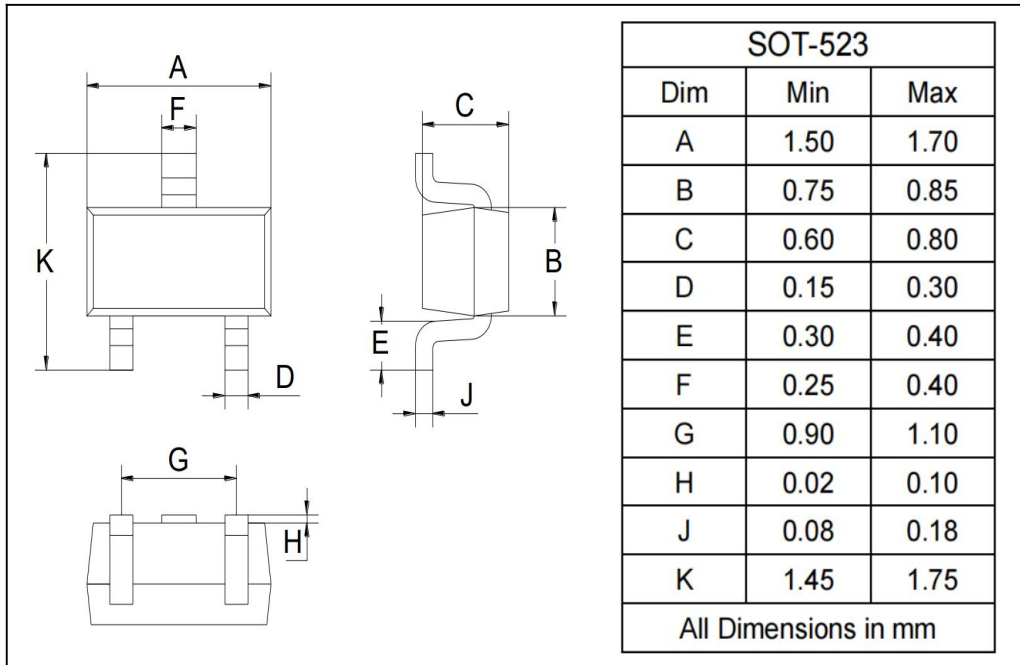
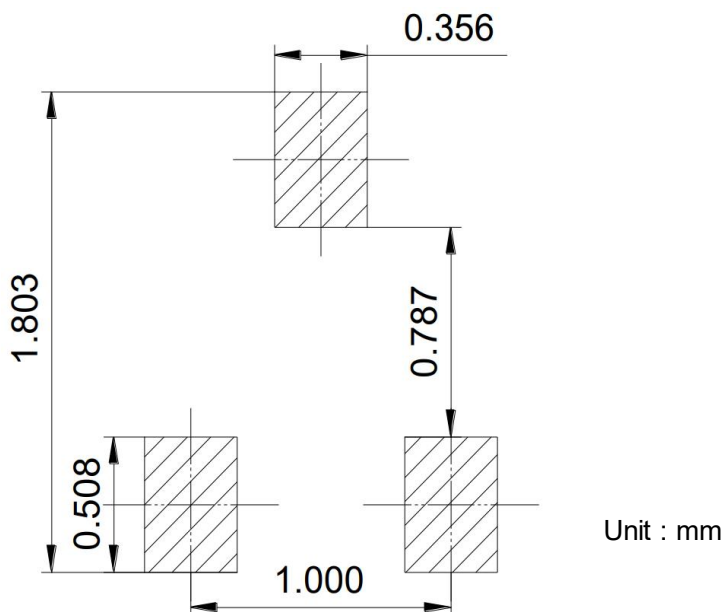


Digital Transistor

DTA(R₁=R₂ SERIES)E
PACKAGE OUTLINE

Plastic surface mounted package

SOT-523


SOLDERING FOOTPRINT

PACKAGE INFORMATION

Device	Package	Shipping
DTA114EE/124EE/143EE/144EE	SOT-523	3000 pcs / Tape & Reel