

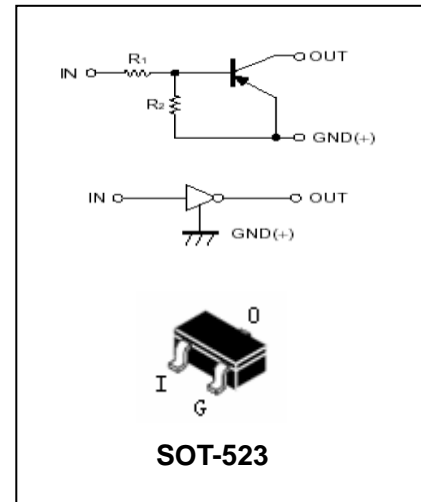


FEATURES

- Epitaxial planar die construction.
- Complementary NPN types available(DTC).
- Built-in biasing resistors, $R_1=R_2$.
- 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 DTA124EE DTA143EE DTA144EE	+10 to -40 +10 to -40 +10 to -30 +10 to -40	V
I_o	Output Current	DTA114EE DTA124EE DTA143EE DTA144EE	-50 -30 -100 -30	mA
$I_C(\text{Max.})$	Output current	ALL	-100	mA
P_D	Power Dissipation		150	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Air		833	°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	$V_{I(off)}$	$V_{CC}=-5V, I_o=-100\mu A$	-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	DTA114EE DTA124EE DTA143EE DTA144EE	$I_o/I_i=-10mA/-0.5mA,$	-	-0.1	-0.3		V
Output Voltage	$V_{O(on)}$						
Input Current	DTA114EE DTA124EE DTA143EE DTA144EE	$V_i=-5V$	-	-	-0.88 -0.36 -1.8 -0.18	mA	
Output Current	$I_{O(off)}$	$V_{CC}=-50V, V_i=0V$	-	-	-0.5	μA	
DC Current Gain	DTA114EE DTA124EE DTA143EE DTA144EE	$V_o=-5V, I_o=-5mA$ $V_o=-5V, I_o=-5mA$ $V_o=-5V, I_o=-10mA$ $V_o=-5V, I_o=-5mA$	30 56 20 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	k Ω	
Resistance Ratio	R_2/R_1	-	0.8	1	1.2		
Gain-Bandwidth Product	f_T	$V_{CE}=-10V, I_E=5mA,$ $f=100MHz$	-	250	-	MHz	

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

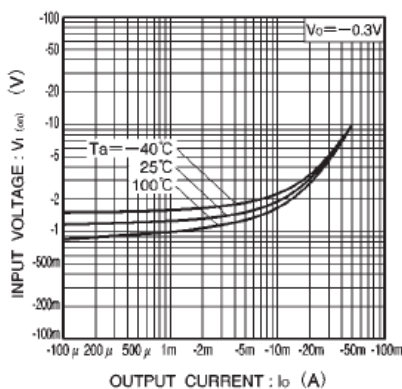


Fig.1 Input voltage vs. output current (ON characteristics)

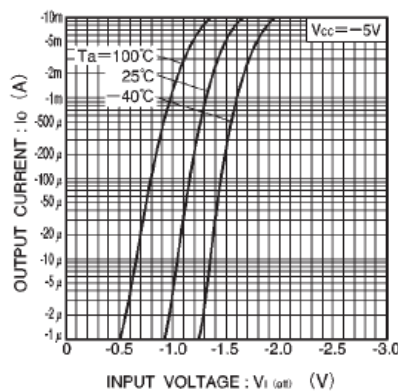


Fig.2 Output current vs. input voltage (OFF characteristics)

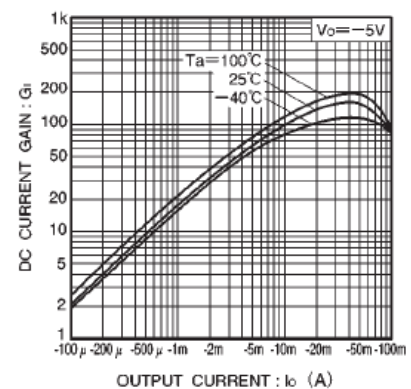


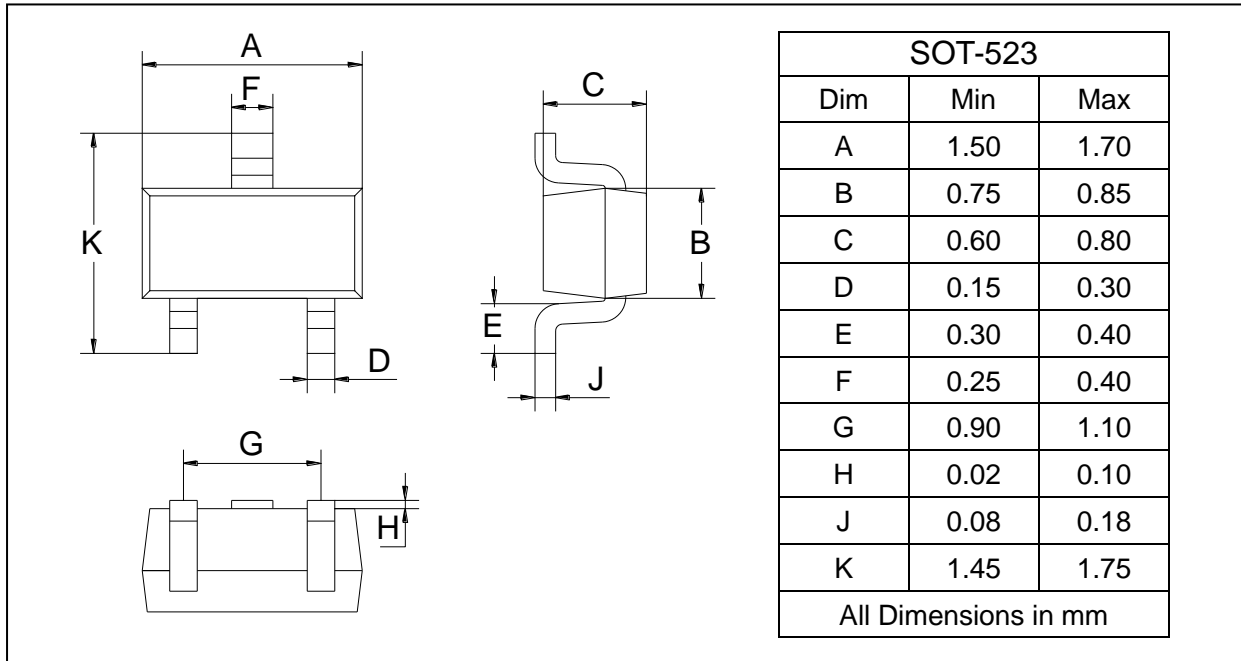
Fig.3 DC current gain vs. output current



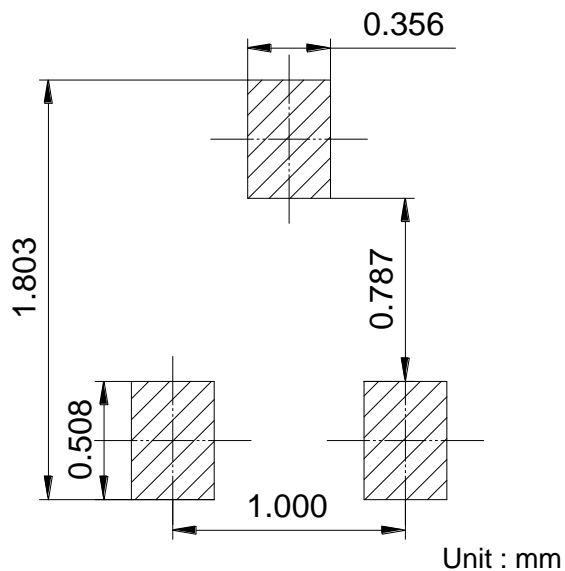
PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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