

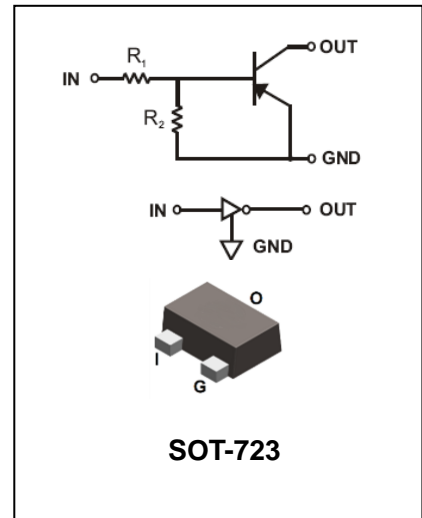


### FEATURES

- Epitaxial planar die construction
- Complementary NPN types available(DTC)
- Built-in biasing resistors,  $R_1 \neq R_2$
- Also available in lead free version

### APPLICATIONS

- The PNP style digital transistor



### ORDERING INFORMATION

Type No.	Marking	Package Code
DTA113ZM	E11	SOT-723
DTA114WM	74	SOT-723
DTA114YM	54	SOT-723
DTA123JM	E41	SOT-723
DTA123YM	61	SOT-723
DTA143XM	42	SOT-723
DTA143ZM	E22	SOT-723



### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units	
V <sub>CC</sub>	Supply Voltage	-50	V	
V <sub>IN</sub>	Input Voltage	DTA113ZM DTA114WM DTA114YM DTA123JM DTA123YM DTA143XM DTA143ZM	+5 to -10 +10 to -30 +6 to -40 +5 to -12 +5 to -12 +7 to -20 +5 to -30	V
I <sub>O</sub>	Output Current	DTA113ZM DTA114WM DTA114YM DTA123JM DTA123YM DTA143XM DTA143ZM	-100 -100 -70 -100 -100 -100 -100	mA
I <sub>C(Max.)</sub>	Output current	ALL	-100	mA
P <sub>D</sub>	Power Dissipation		100	mW
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient Air		1250	°C/W
T <sub>j</sub> , T <sub>stg</sub>	Operating and Storage and Temperature Range		-55 to +150	°C

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

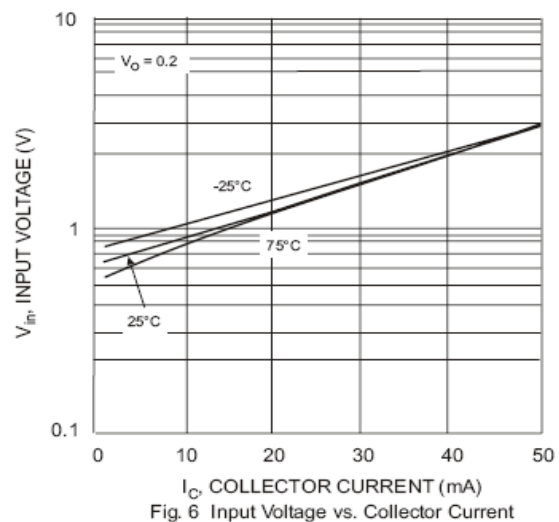
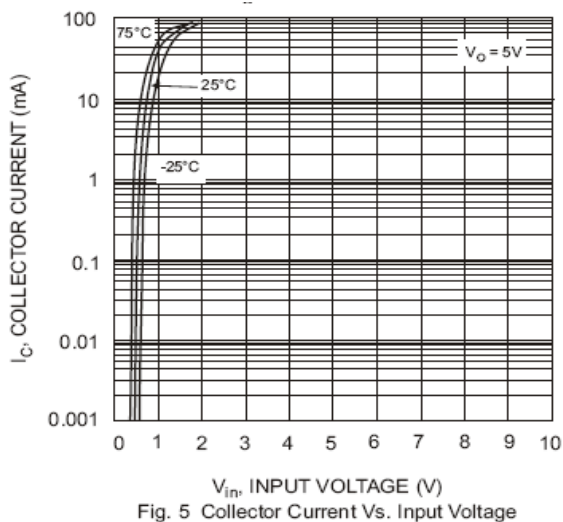
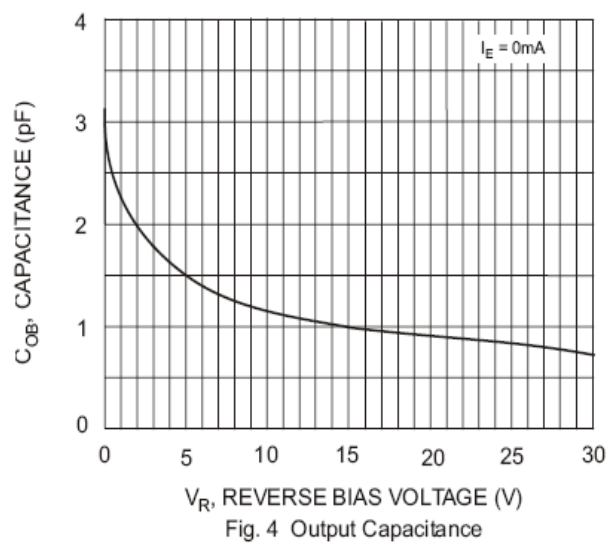
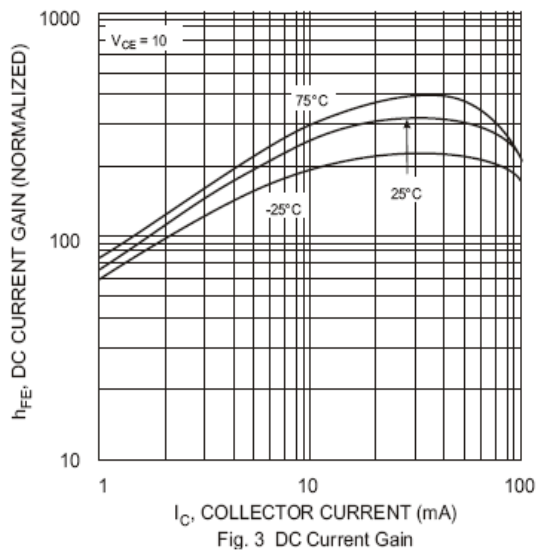
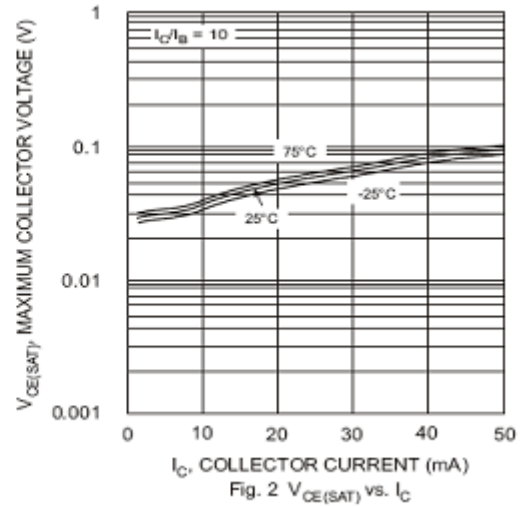
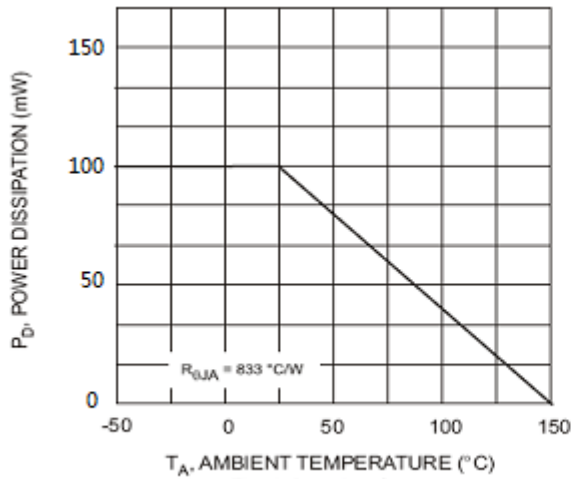
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT	
Input Voltage	DTA113ZM DTA114WM DTA114YM DTA123JM DTA123YM DTA143XM DTA143ZM	V <sub>I(off)</sub>	V <sub>CC</sub> =-5V, I <sub>O</sub> =-100μA	-0.3 -0.8 -0.3 -0.5 -0.3 -0.3 -0.5	-	-	V
Input Voltage	DTA113ZM DTA114WM DTA114YM DTA123JM DTA123YM DTA143XM DTA143ZM	V <sub>I(on)</sub>	V <sub>O</sub> =-0.3V, I <sub>O</sub> =-20mA V <sub>O</sub> =-0.3V, I <sub>O</sub> =-2mA V <sub>O</sub> =-0.3V, I <sub>O</sub> =-1mA V <sub>O</sub> =-0.3V, I <sub>O</sub> =-5mA V <sub>O</sub> =-0.3V, I <sub>O</sub> =-20mA V <sub>O</sub> =-0.3V, I <sub>O</sub> =-20mA V <sub>O</sub> =-0.3V, I <sub>O</sub> =-20mA V <sub>O</sub> =-0.3V, I <sub>O</sub> =-5mA	-	-	-3.0 -3.0 -1.4 -1.1 -3.0 -2.5 -1.3	



Output Voltage	DTA123JM DTA143ZM DTA114YM ALL Others	$V_{O(on)}$	$I_O/I_I=-5mA/-0.25mA$  $I_O/I_I=-10mA/-0.5mA$	-	-0.1	-0.3	V
Input Current	DTA113ZM DTA114WM DTA114YM DTA123JM DTA123YM DTA143XM DTA143ZM	$I_i$	$V_I=-5V$	-	-	-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	$\mu A$
DC Current Gain	DTA113ZM DTA114WM DTA114YM DTA123JM DTA123YM DTA143XM DTA143ZM	$G_i$	$V_O=-5V, I_O=-5mA$ $V_O=-5V, I_O=-10mA$ $V_O=-5V, I_O=-5mA$ $V_O=-5V, I_O=-10mA$ $V_O=-5V, I_O=-10mA$ $V_O=-5V, I_O=-10mA$ $V_O=-5V, I_O=-10mA$	33 24 68 80 33 30 80	-	-	
<b>Parameter</b>		<b>Symbol</b>	<b>Test conditions</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNIT</b>
Input Resistor	DTA113ZM DTA114WM DTA114YM DTA123JM DTA123YM DTA143XM DTA143ZM	$R_1(R_2)$		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	k $\Omega$
Input Resistor ( $R_1$ ) Tolerance		$\Delta R_1$	-	-30		+30	%
Resistance Ratio Tolerance		$\Delta R_2/R_1$	-	-20		+20	%
Gain-Bandwidth Product		$f_T$	$V_{CE}=-10V, I_E=-5mA,$ $f=100MHz$	-	250	-	MHz



### TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

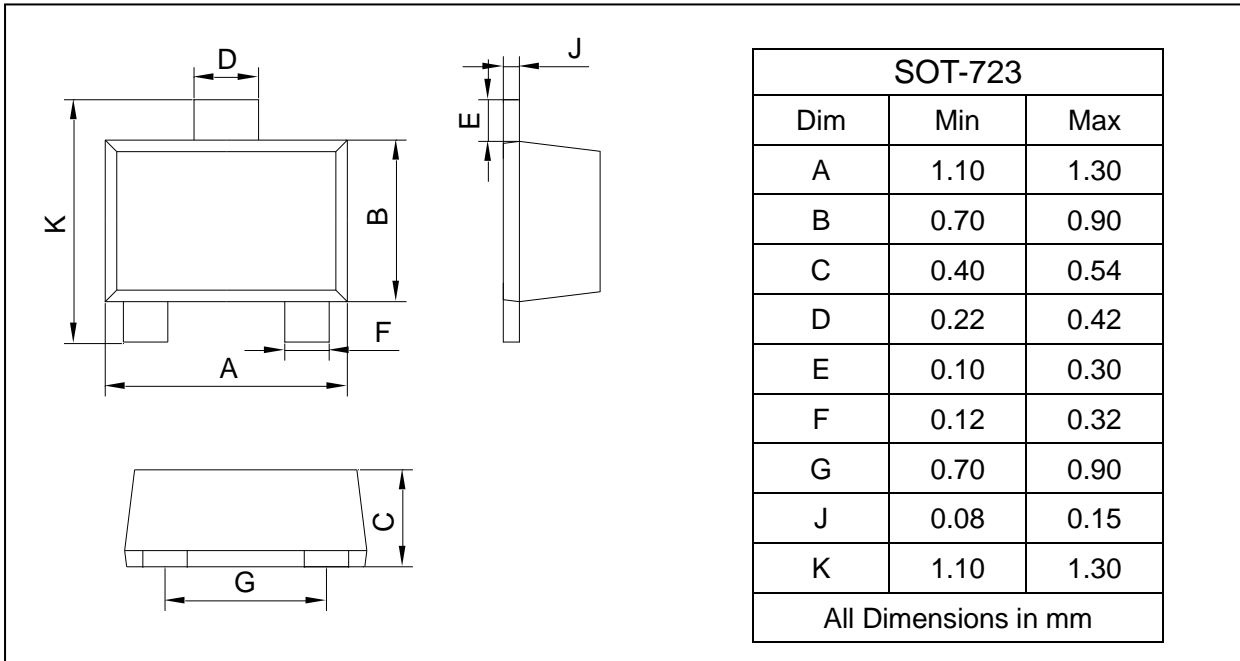




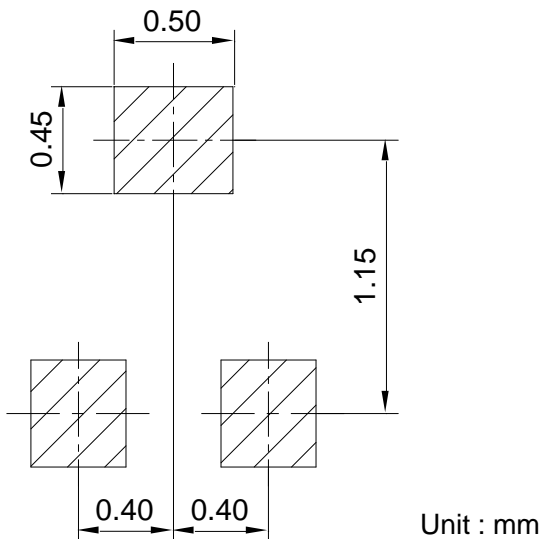
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-723



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
DTAXXXM	SOT-723	10000 pcs / Tape & Reel