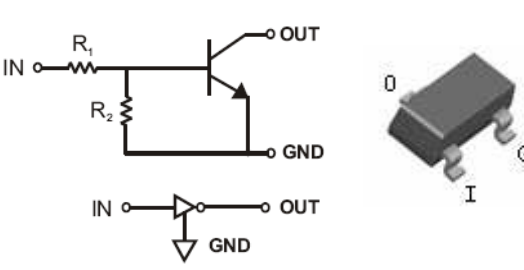


<b>Digital Transistor</b>	<b>DTC(R1=R2 SERIES)CA</b>
<p><b>SOT-23</b></p> 	<p><b>Features</b></p> <ul style="list-style-type: none"> <li>● Epitaxial planar die construction.</li> <li>● Complementary PNP types available(DTA).</li> <li>● Built-in biasing resistors, <math>R_1=R_2</math>.</li> <li>● Also available in lead free version.</li> </ul> <p><b>Application</b></p> <ul style="list-style-type: none"> <li>● The NPN style digital transistor.</li> </ul>

## ORDERING INFORMATION

Type No.	Marking	Package Code
DTC114ECA	24	SOT-23
DTC124ECA	25	SOT-23
DTC143ECA	23	SOT-23
DTC144ECA	26	SOT-23

## MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Value	Units	
$V_{CC}$	Supply Voltage	50	V	
$V_{IN}$	Input Voltage	DTC114ECA	-10 to+40	
		DTC124ECA	-10 to+40	
		DTC143ECA	-10 to+30	
		DTC144ECA	-10 to+40	
$I_o$	Output Current	DTC114ECA	50	
		DTC124ECA	30	
		DTC143ECA	100	
		DTC144ECA	100	
$I_C(\text{Max.})$	Output current	ALL	100	mA
$P_D$	Power Dissipation	200	mW	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Air	625	$^\circ\text{C}/\text{W}$	
$T_j, T_{stg}$	Operating and Storage and Temperature Range	-55 to +150	$^\circ\text{C}$	

## 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	$V_{I(on)}$	$V_O=0.3V, I_O=10mA$	-	1.9	3	
DTC124ECA		$V_O=0.2V, I_O=5mA$				
DTC143ECA		$V_O=0.3V, I_O=20mA$				
DTC144ECA		$V_O=0.3V, I_O=2mA$				
Output Voltage	$V_{O(on)}$	$I_O/I_I=10mA/0.5mA$	-	0.1	0.3	V
Input Current	$I_I$	$V_I=5V$	-	-	0.88	mA
DTC124ECA					0.36	
DTC143ECA					1.8	
DTC144ECA					0.18	
Output Current	$I_{O(off)}$	$V_{CC}=50V, V_I=0V$	-	-	0.5	$\mu A$
DC Current Gain	$G_I$	$V_O=5V, I_O=5mA$	30	-	-	
DTC124ECA			56			
DTC143ECA			20			
DTC144ECA			68			
Input Resistor	$R_1(R_2)$		7	10	13	k $\Omega$
DTC124ECA			15.4	22	28.6	
DTC143ECA			3.29	4.7	6.11	
DTC144ECA			32.9	47	61.1	
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

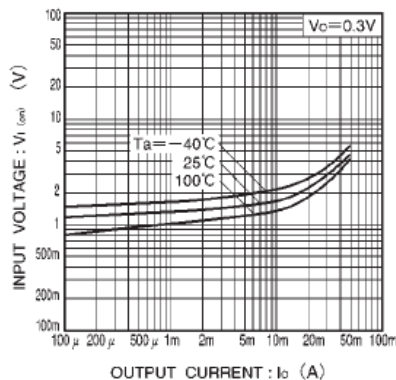


Fig.1 Input voltage vs. output current (ON characteristics)

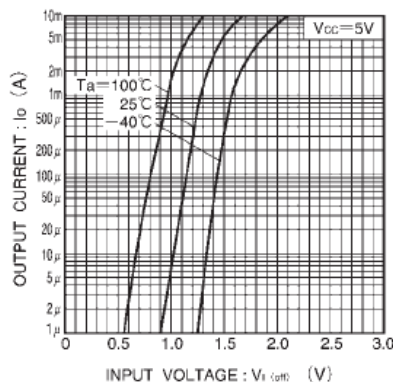


Fig.2 Output current vs. input voltage (OFF characteristics)

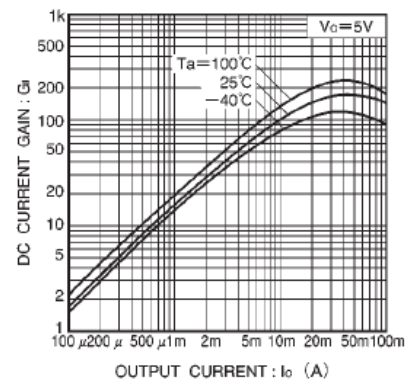


Fig.3 DC current gain vs. output current

单击下面可查看定价，库存，交付和生命周期等信息

[>>DIOS\(迪恩思\)](#)