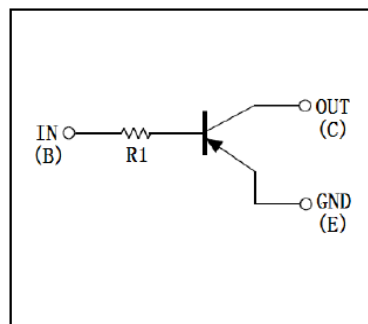


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors (see equivalent circuit).
- The bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input. They also have the advantage of almost completely eliminating parasitic effects.
- Only the on/off conditions need to be set for operation, making device design easy.

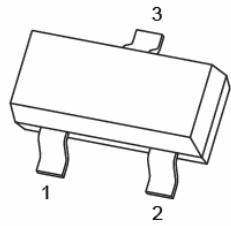
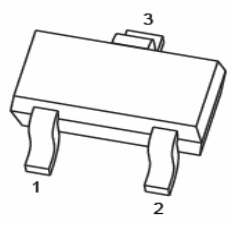
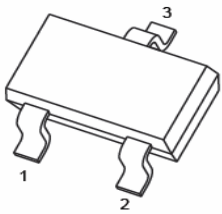
EQUIVALENT CIRCUIT



ORDER INFORMATION

Part Number	Type
DTA144T Series	Lead (Pb)-free
DTA144T Series-C	Lead (Pb)-free and Halogen-free

PIN CONNENCTIONS AND MARKING

<p>DTA144TCA</p> <ol style="list-style-type: none"> 1. IN 2. GND 3. OUT  <p>SOT-23 MARKING: 96</p>	<p>DTA144TE</p> <ol style="list-style-type: none"> 1. IN 2. GND 3. OUT  <p>SOT-523 MARKING: 96</p>
<p>DTA144TUA</p> <ol style="list-style-type: none"> 1. IN 2. GND 3. OUT  <p>SOT-323 MARKING: 96</p>	

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Limits (DTA144T□)			Unit
		E	UA	CA	
Collector-Base Voltage	V_{CBO}	-50			V
Collector-Emitter Voltage	V_{CEO}	-50			
Emitter-Base Voltage	V_{EBO}	-5			
Collector Current	I_C	-100			mA
Power Dissipation	P_D	150	200		mW
Junction & Storage Temperature Range	T_J, T_{STG}	150, -55~150			$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-50	-	-	V	$I_C = -50\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50	-	-		$I_C = -1\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-		$I_E = -50\mu\text{A}, I_C = 0$
Collector Cut-off Current	I_{CBO}	-	-	-0.5	μA	$V_{CB} = -50\text{V}, I_E = 0$
Emitter Cut-off Current	I_{EBO}	-	-	-0.5	μA	$V_{EB} = -4\text{V}, I_C = 0$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.3	V	$I_C = -5\text{mA}, I_B = -0.5\text{mA}$
DC Current Gain	h_{FE}	100	300	600		$V_{CE} = -5\text{V}, I_C = -1\text{mA}$
Input Resistor	R_1	32.9	47	61.1	k Ω	
Transition Frequency	f_T	-	250	-	MHz	$V_{CE} = -10\text{V}, I_E = -5\text{mA}, f = 100\text{MHz}$

CHARACTERISTIC CURVES

Static Characteristic

