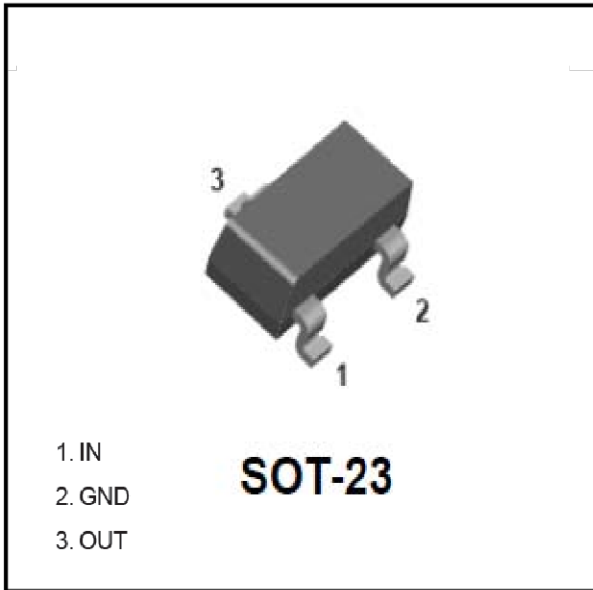


Digital Transistors (Built-in Resistors)



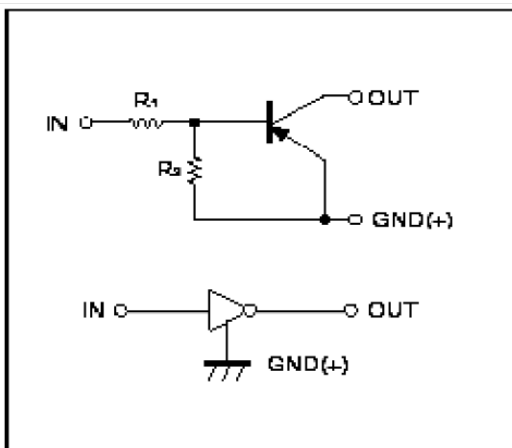
Features

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors
- Surface mount package ideally Suited for Automatic Insertion
- PNP

Mechanical Data

- **Package:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** 16

■Equivalent circuit



■Maximum Ratings (Ta=25°C Unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	VALUE
Supply Voltage	VCC	V		-50
Input Voltage	VIN	V		-40 to +10
Output Current	IO	mA		-100
Power Dissipation	PD	mW		200
Junction Temperature	Tj	°C		150
Storage Temperature	TSTG	°C		-55 to +150



DTA144ECA

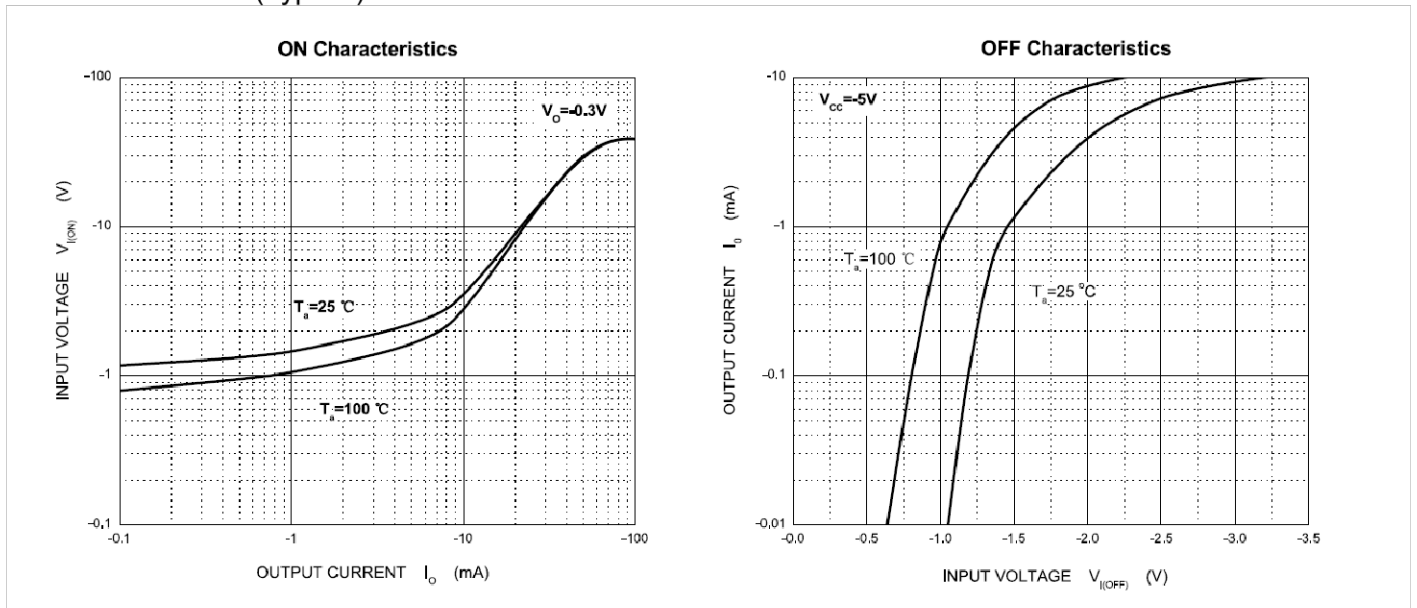
■ Electrical Characteristics (Ta=25°C unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Input voltage	$V_{I(off)}$	V	$V_{CC}=-5V, I_c=-100\mu A$ $V_O=-0.3V, I_c=-2mA$	-0.5		
	$V_{I(on)}$	V				-3
Output voltage	$V_{O(on)}$	V	$I_o / I_i = -10mA / -0.5 mA$			-0.3
Input current	I_i	mA	$V_i = -5V$			-0.18
Output current	$I_{O(off)}$	μA	$V_{CC} = -50V, V_i = 0$			-0.5
DC current gain	G_I		$V_o = -5V, I_o = -5mA$	68		
Input resistance	R_1	$k\Omega$		32.9	47	61.1
Resistance ratio	R_2/R_1			0.8	1	1.2
Transition frequency	f_T	MHz	$V_{CE} = -10V, I_E = -5mA$		250	

■ Ordering Information (Example)

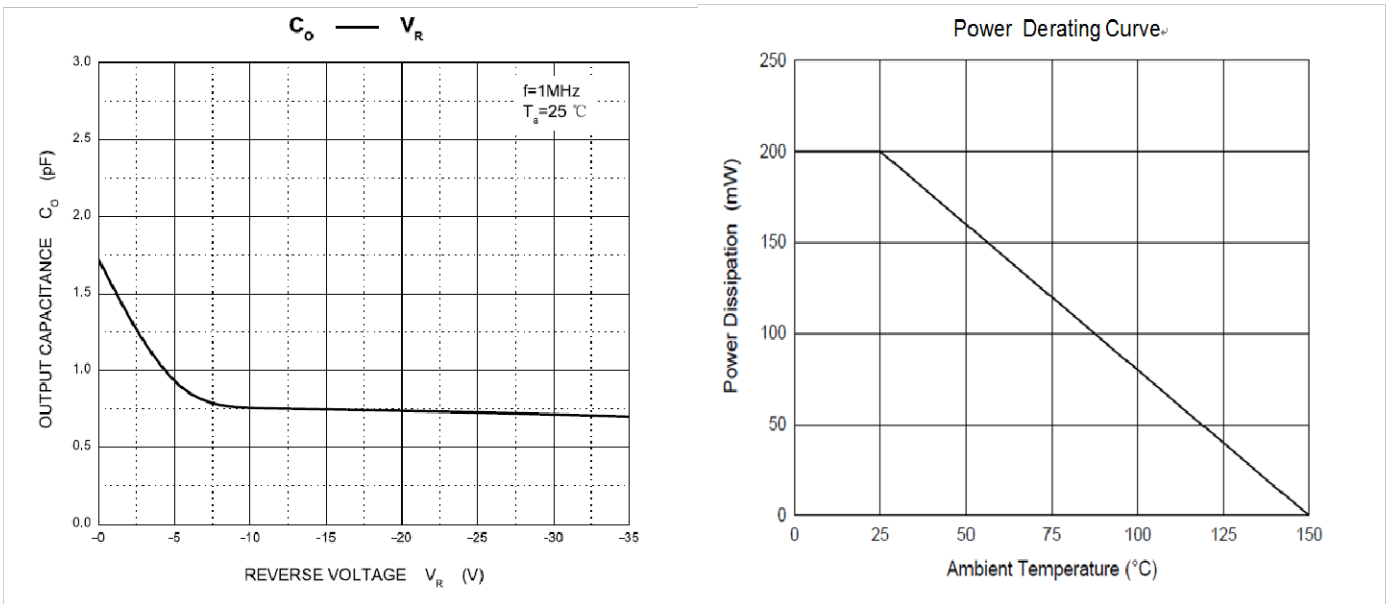
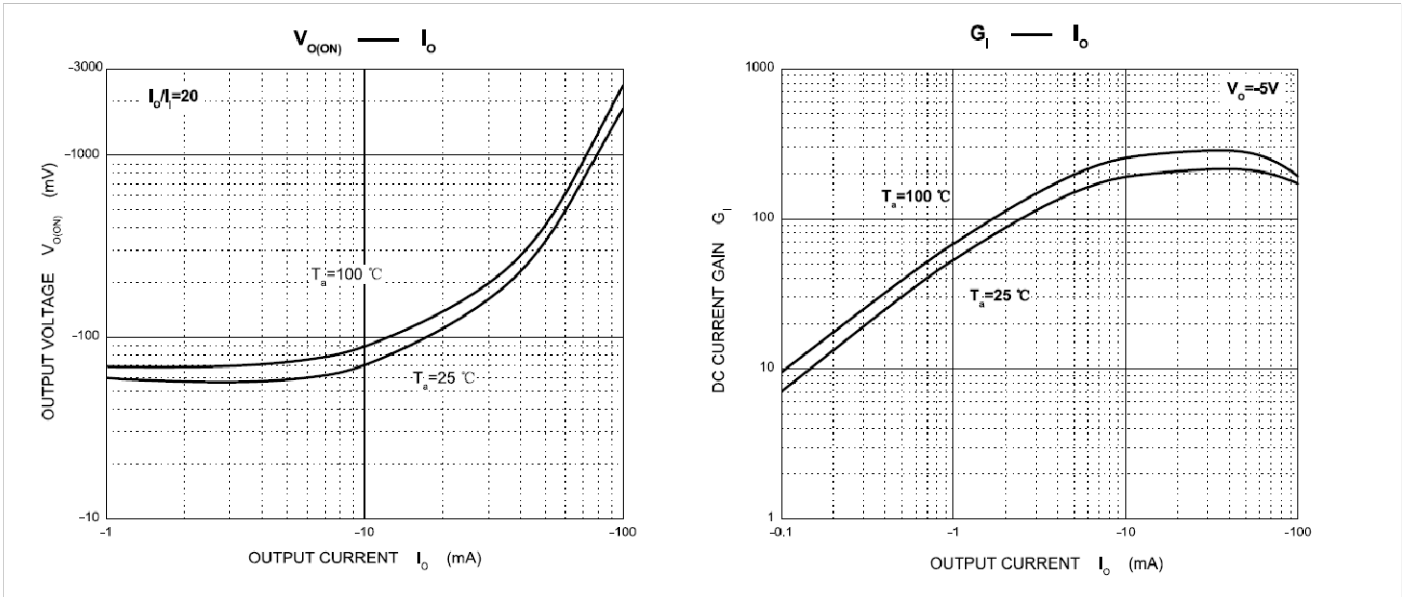
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DTA144ECA	F2	Approximate 0.009	3000	30000	120000	7" reel

■ Characteristics (Typical)





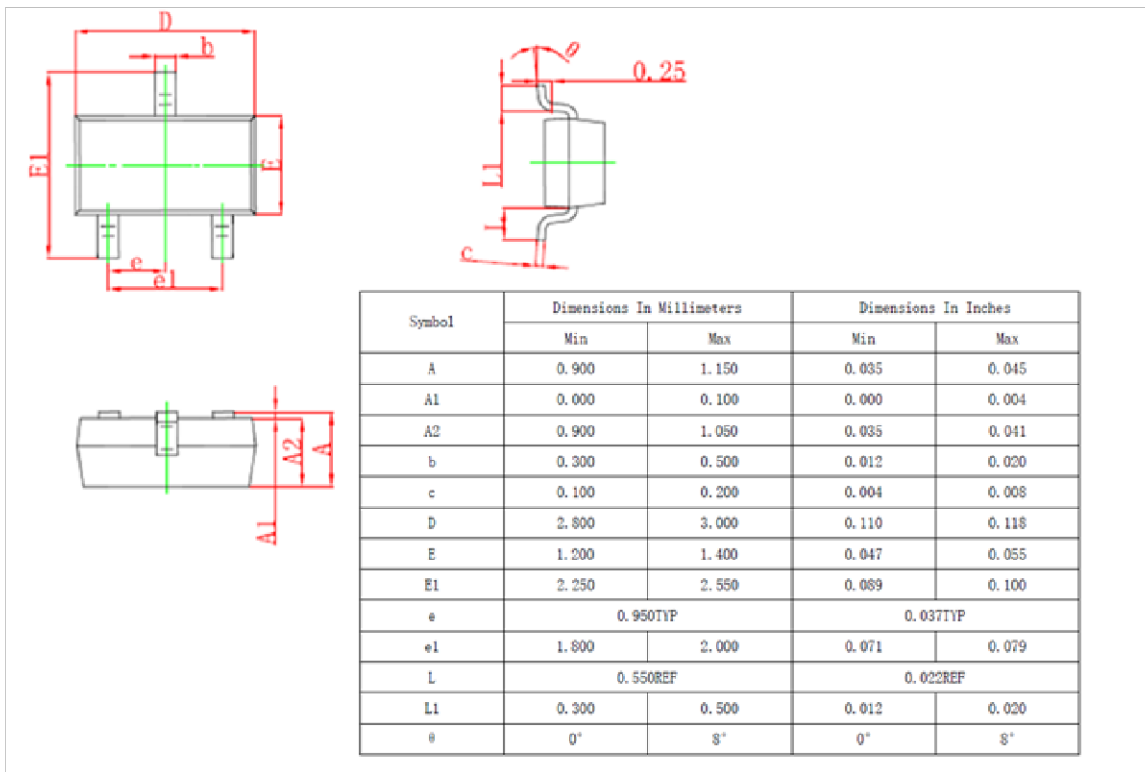
DTA144ECA



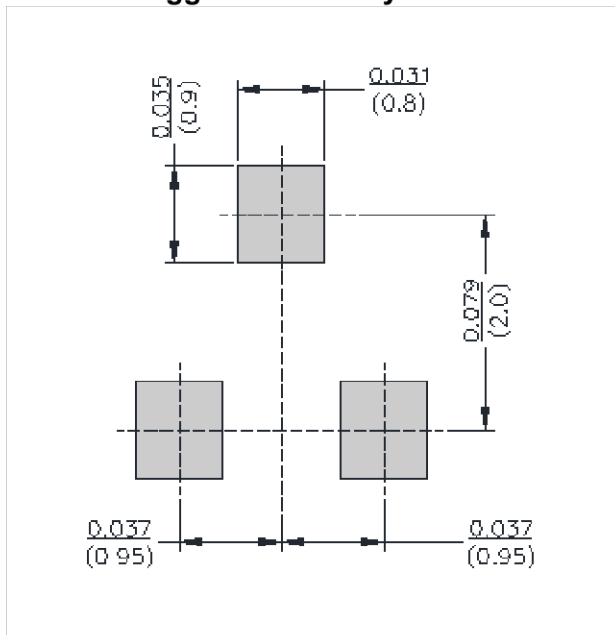


DTA144ECA

■SOT-23 Package Outline Dimensions



■SOT-23 Suggested Pad Layout





Disclaimer

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