



Digital Transistors (Built-in Resistors)

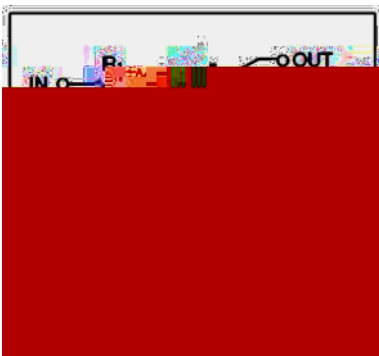
Features

- 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
- NPN

Mechanical Data

- Package:** SOT-23
- Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking:** 04

Equivalent circuit



Maximum Ratings (Ta=25 Unless otherwise specified)

ITEM



DTC114TCA

Electrical Characteristics (Ta=25 unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Collector-Base Breakdown Voltage	V_{CBO}	V	$I_C=50\mu A$	50		
Collector-Emitter Breakdown Voltage	V_{CEO}	V	$I_C=1mA$	50		
Emitter-Base Breakdown Voltage	V_{EBO}	V	$I_E=50\mu A$	5		
Collector Cut-off Current	I_{CBO}	μA	$V_{CB}=50V$			0.5
Emitter Cut-off Current	I_{EBO}	μA	$V_{EB}=4V$			0.5
DC current gain	h_{FE}		$V_{CE}=5V, I_C=1mA$	100		600
Input resistance	R_1	k		7	10	13
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=10mA, I_B=1mA$			0.3
Transition frequency	f_T	MHz	$V_{CE}=10V, I_E=5mA, f=100MHz$		250	

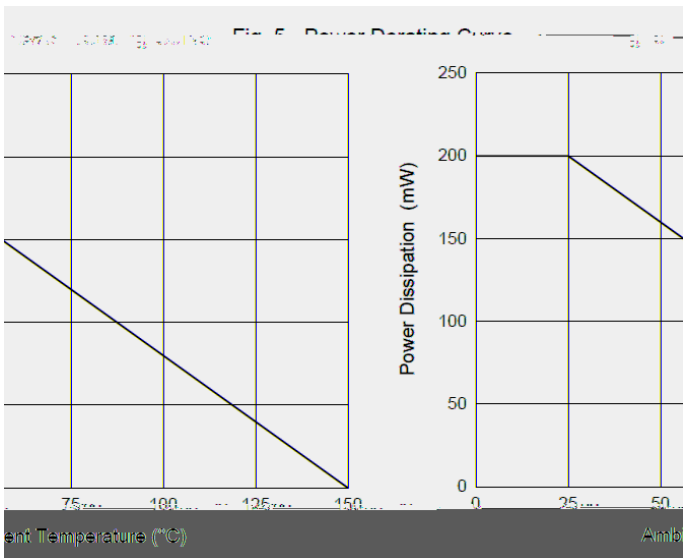
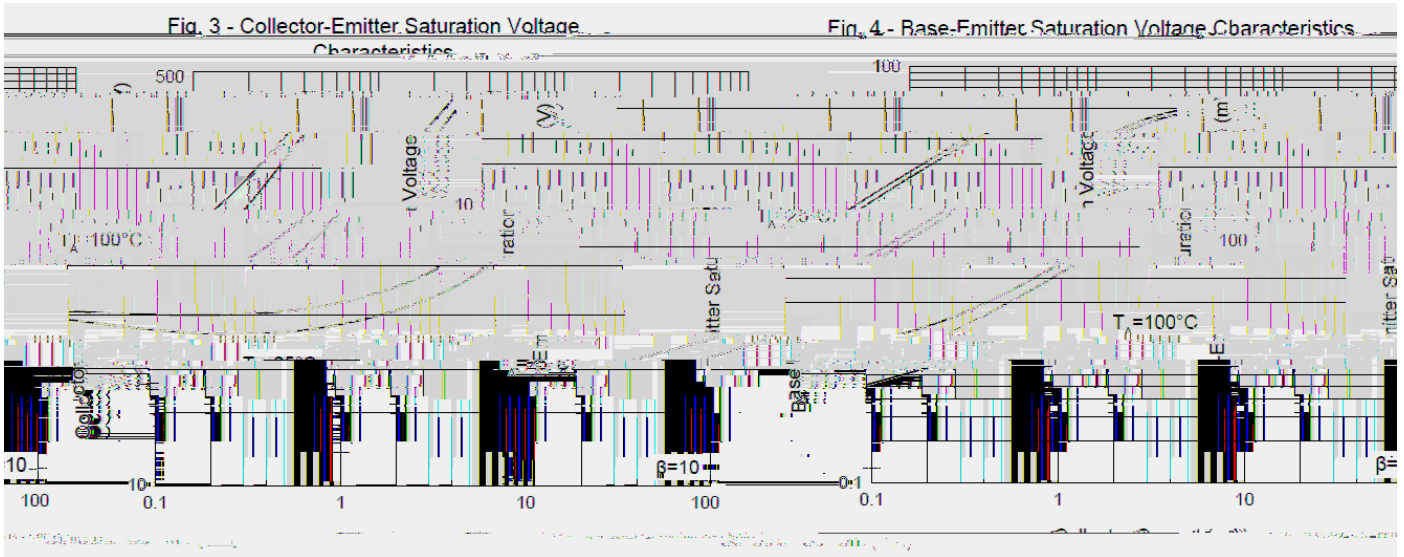
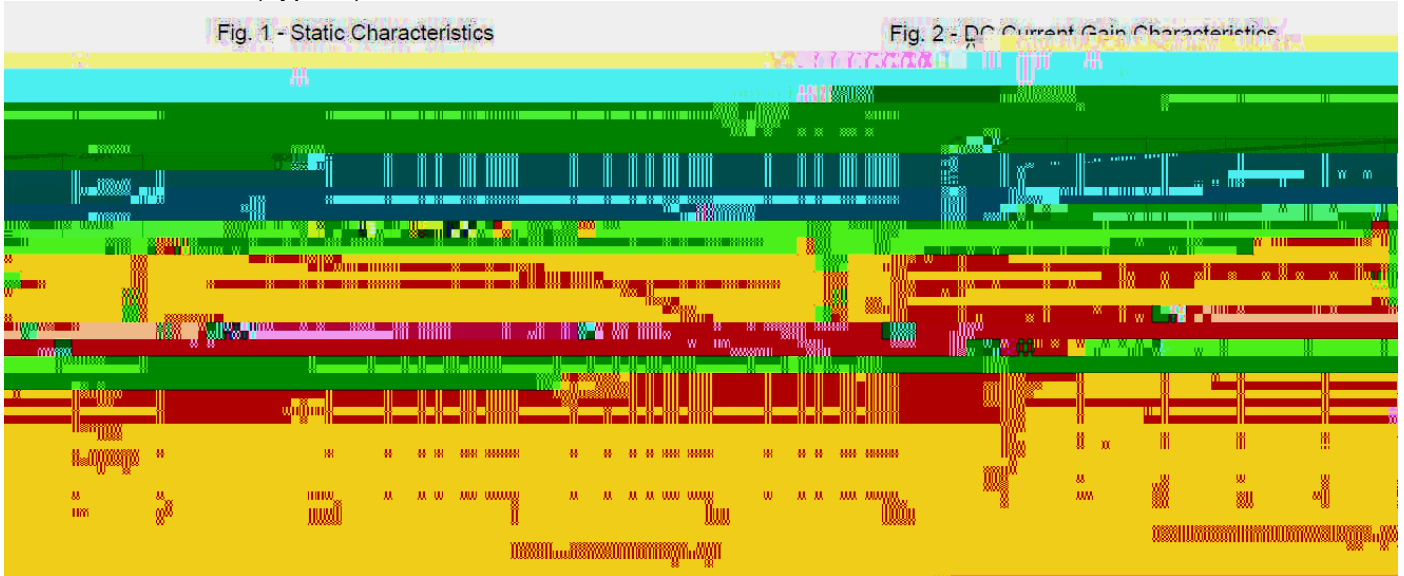
Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
DTC114TCA	F2	Approximate 0.009	3000	30000	120000	7" reel



DTC114TCA

Characteristics (Typical)



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v627 3DFNDJH 2XWOLQH 'LPHQVLRQV

v627 6XJJHVWHG 3DG /D\RXW



DTC114TCA

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