



NPN Digital Transistors (Built-in Resistors)

Features

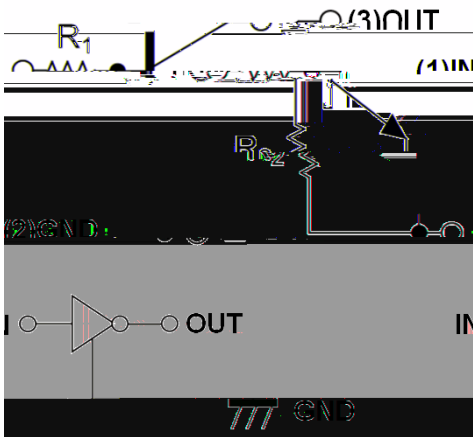
Moisture Sensitivity Level 1

Surface mount package ideally Suited for Automatic Insertion

Epoxy meets UL-94 V-0 flammability o MTin plated leads, solderable per J-STD-002 and JESD22-B102

Marking: 64

Equivalent circuit



Maximum Ratings (Ta=25 Unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	VALUE
Supply Voltage	V_{CC}	V		50
Input Voltage	V_{IN}	V		-6 to +40
Output Current	I_o	mA		100
Power Dissipation	P_D	mW		150
Junction Temperature	T_J			150
Storage Temperature	T_{STG}			-55 to +150



DTC114YE

Electrical Characteristics (Ta=25 unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Input voltage	$V_{I(off)}$	V	$V_{CC}=5V, I_o=100\mu A$	0.3		
	$V_{I(on)}$	V	$V_o=0.3V, I_o=1mA$			1.4
Output voltage	$V_{O(on)}$	V	$I_o / I_i = 5mA / 0.25mA$			0.3
Input current	I_i	mA	$V_i=5V$			0.88
Output current	$I_{O(off)}$	μA	$V_{CC}=50V, V_i=0$			0.5
DC current gain	G_1		$V_o=5V, I_o = 5mA$	68		
Input resistance	R_1	k		7	10	13
Resistance ratio	R_2/R_1			3.7	4.7	5.7
Transition frequency	f_T	MHz	$V_o=10V, I_o=-5mA$		250	

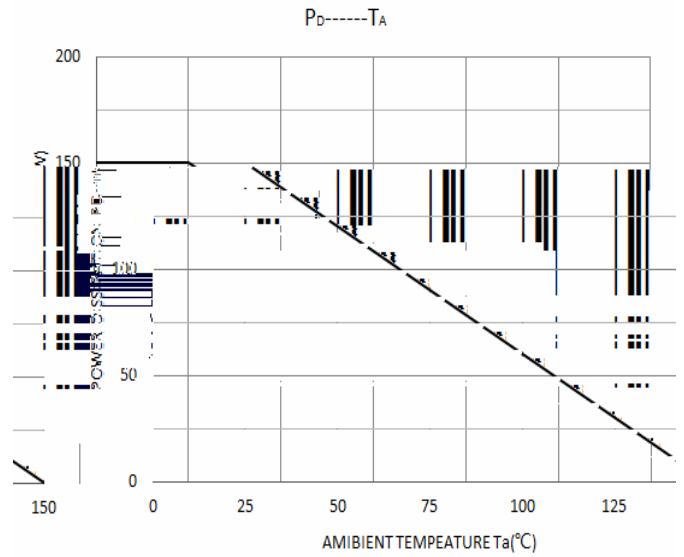
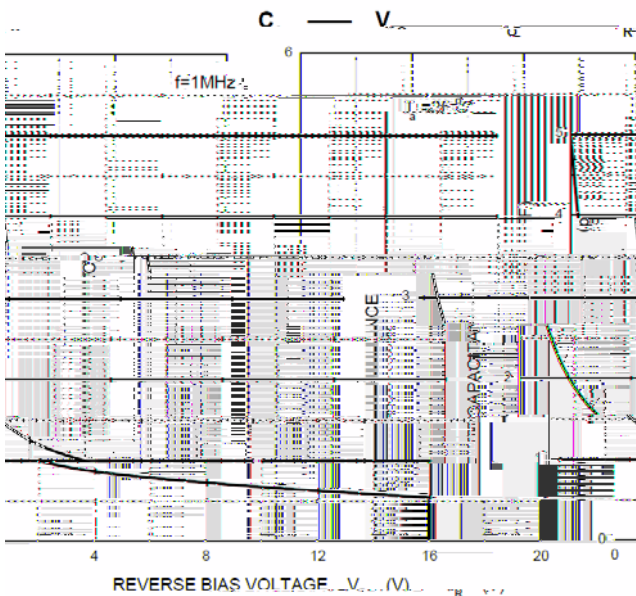
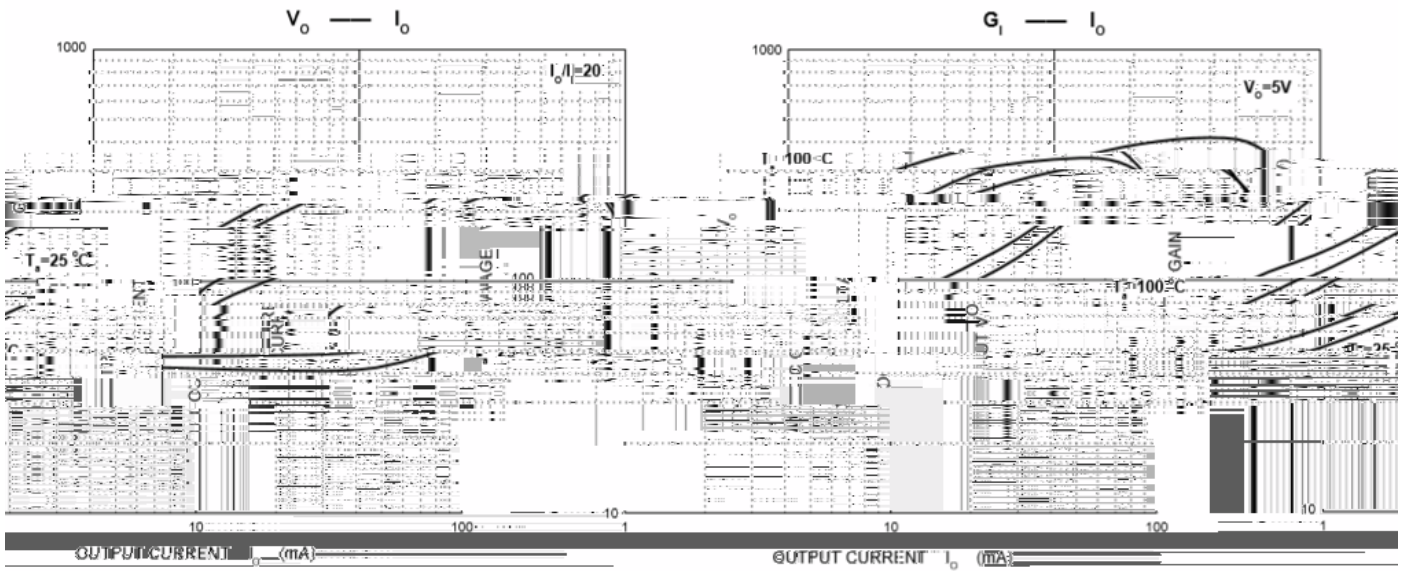
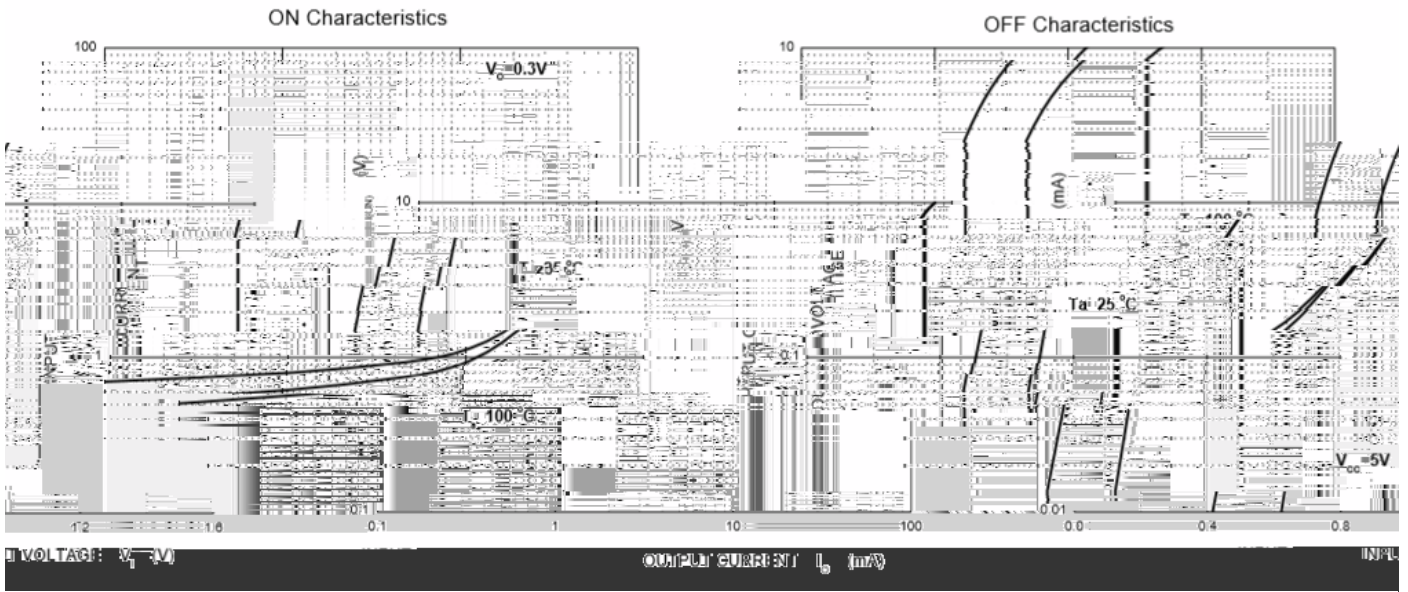
Ordering Information (Example)

Preferred P/N	Packing code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
DTC114YE	F2	Approximate 0.0027	3000	30000	120000	7" reel



DTC114YE

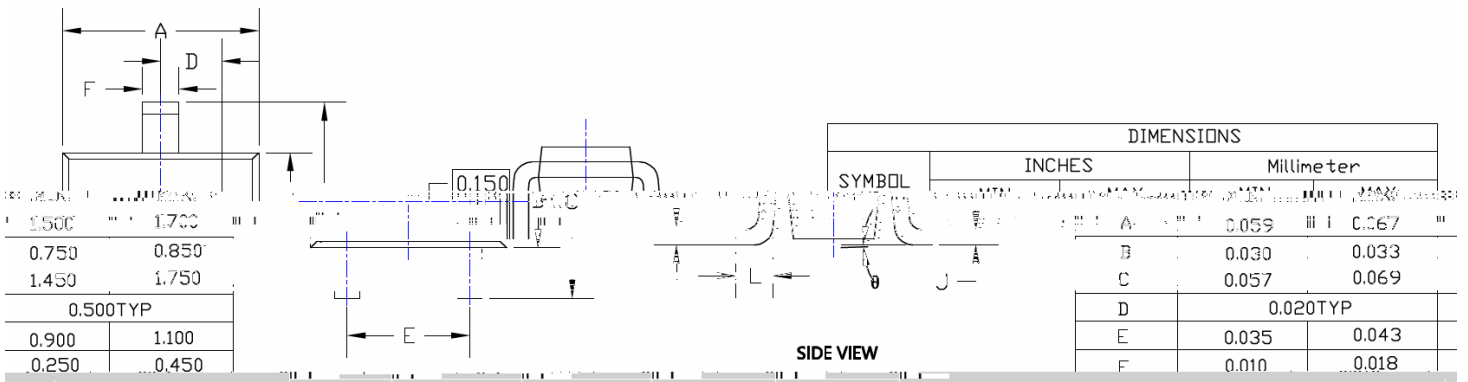
Characteristics (Typical)





DTC114YE

SOT-523 Package Outline Dimensions



Note:

1. All dimensions are in millimeters (mm) unless otherwise specified.



