



NPN Digital Transistors (Built-in Resistors)

Features

Moisture Sensitivity Level 1

Surface mount package ideally Suited for Automatic

Insertion

Epoxy meets MIL-STD-2000, Part 2013, Class B (S) 9.0000USn-USn-US



DTC144WE

Electrical Characteristics (Ta=25 unless otherwise specified)

ITEM	SYMBOL	UNIT	CONDITIONS	MIN	TYP	MAX
Input voltage	$V_{I(off)}$	V	$V_{CC}=5V, I_c=100\mu A$	0.8		
	$V_{I(on)}$	V	$V_o=0.3V, I_c=2mA$			4
Output voltage	$V_{O(on)}$	V	$I_o / I_i = 10mA / 0.5 mA$			0.3
Input current	I_i	mA	$V_i=5V$			160
Output current	$I_{o(off)}$	μA	$V_{CC}=50V, V_i=0$			0.5
DC current gain	G_i		$V_o=5V, I_o = 5mA$	56		
Input resistance	R_1	k		33	47	61
Resistance ratio	R_2/R_1			0.37	0.47	0.57
Transition frequency	f_T	MHz	$V_o=10V, I_o=5mA, f=100MHz$		250	

Ordering Information (Example)

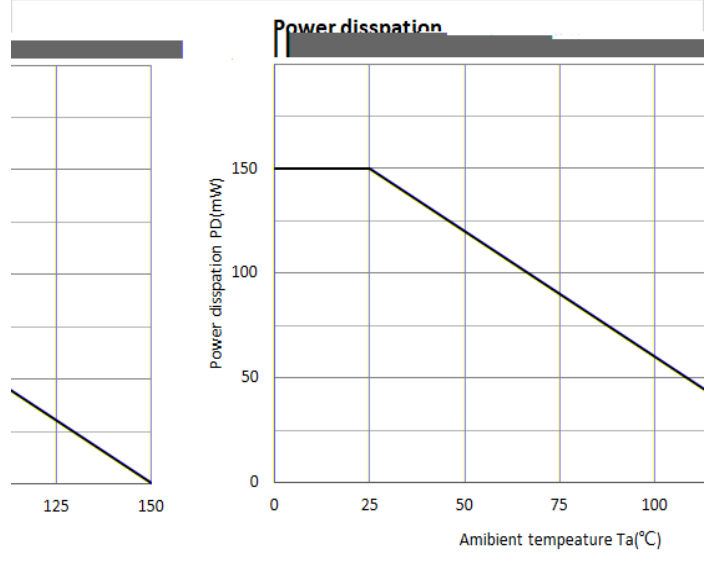
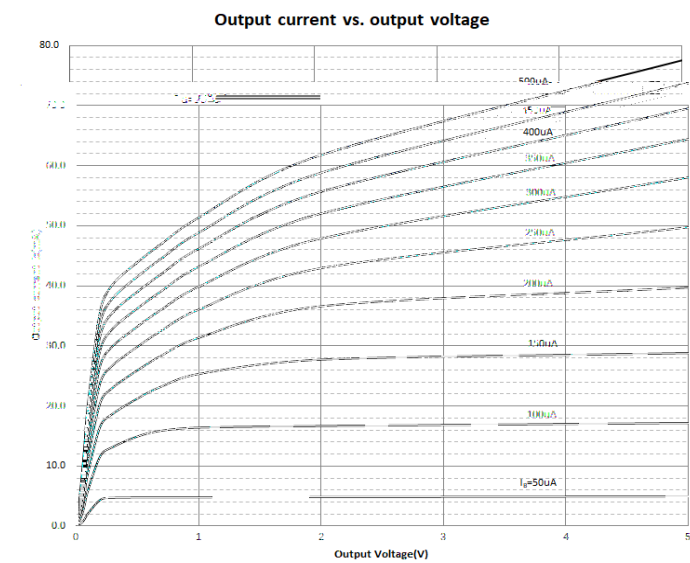
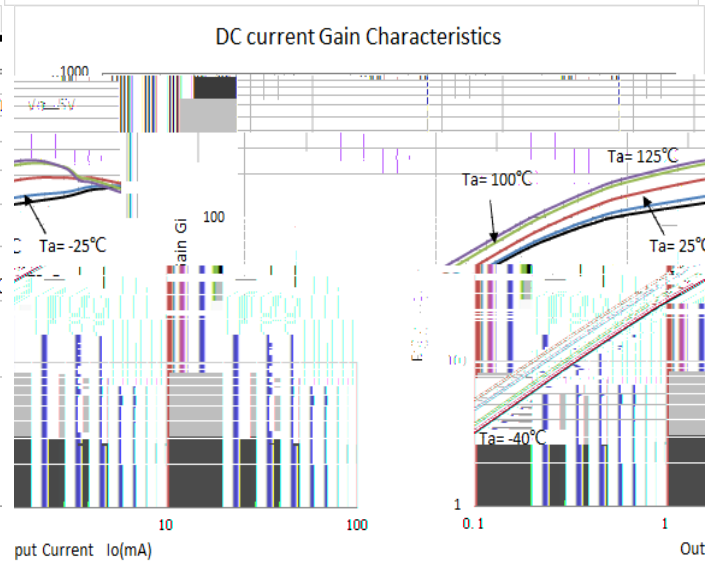
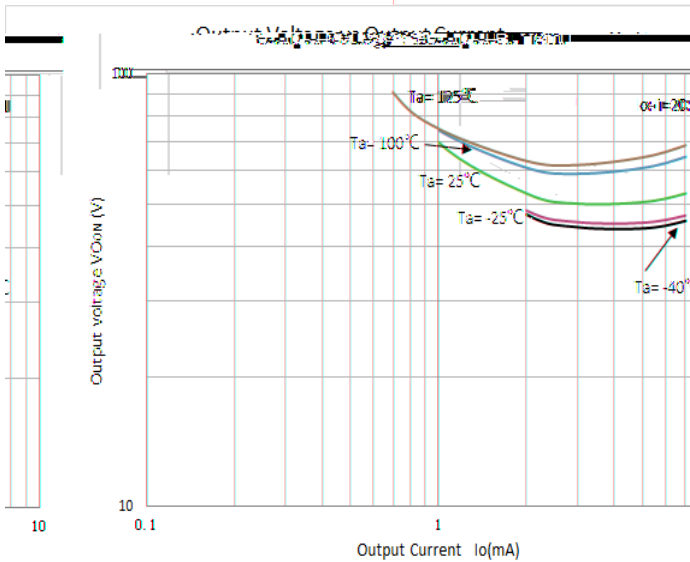
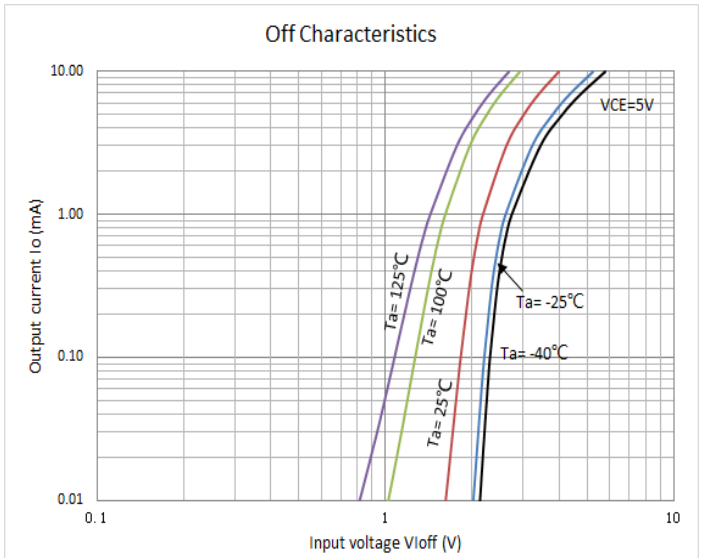
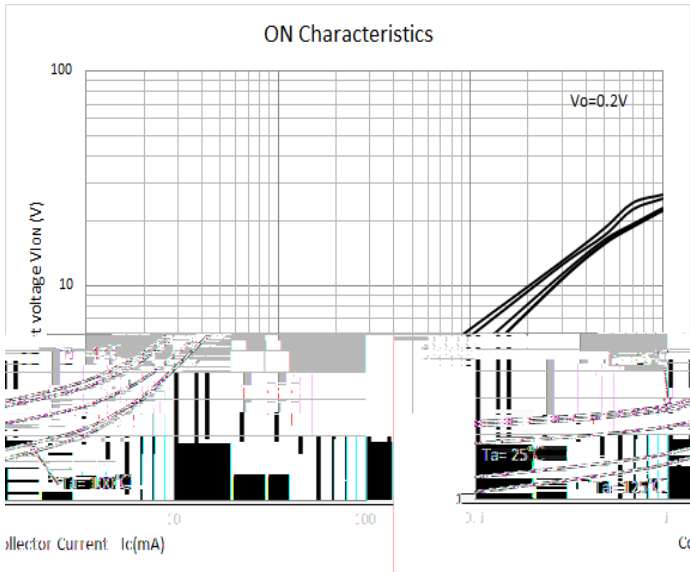
Preferred P/N	Packing code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
DTC144WE	F2	Approximate 0.0027	3000	30000	120000	7" reel

Thermal Characteristics

	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{J-A}^{(1)}$	/W	833

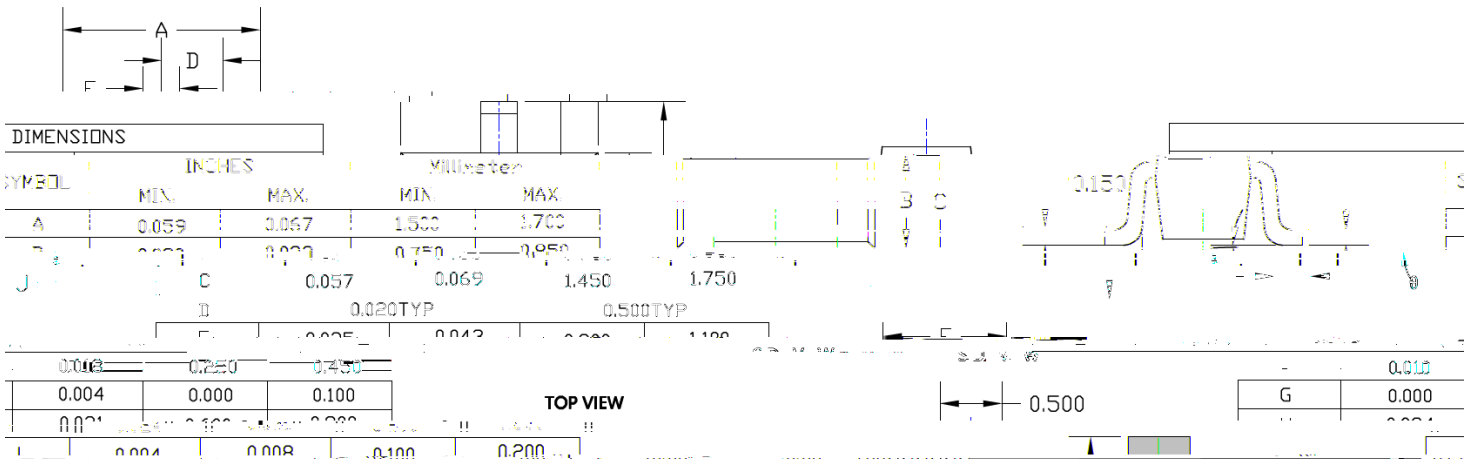


Characteristics (Typical)





SOT-523 Package Outline Dimensions



Note:

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

[所有尺寸均以毫米为单位，除非另有说明]

2. General tolerances: $\pm 0.10\text{mm}$ unless otherwise specified.

[通用公差为 $\pm 0.10\text{mm}$ ，除非另有说明]

3. Dimensions and tolerances per ASME Y14.5M-2018.

[尺寸和公差按ASME Y14.5M-2018]



DTC144WE

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