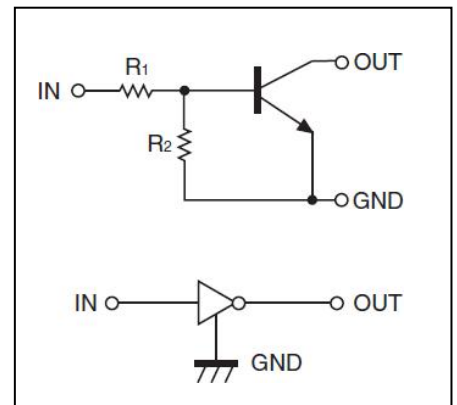


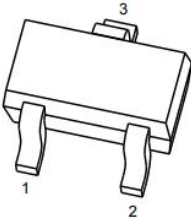
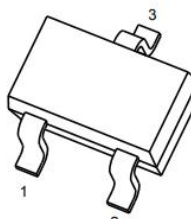
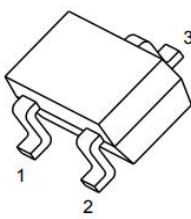
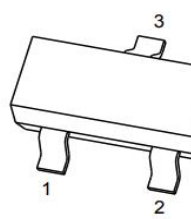
DTC123JE NPN Silicon Epitaxial Planar Digital Transistor

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 negative 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



PIN CONNENCTIONS and MARKING

<p>DTC123JE</p>  <p>SOT-523</p> <p>1. IN 2. GND 3. OUT</p>	<p>DTC123JUA</p>  <p>SOT-323</p> <p>1. IN 2. GND 3. OUT</p>
<p>DTC123JKA</p>  <p>SOT-23-3L</p> <p>1. IN 2. GND 3. OUT</p>	<p>DTC123JCA</p>  <p>SOT-23</p> <p>1. IN 2. GND 3. OUT</p>

ORDERING INFORMATION

Part Number	MARKING	Package	Packing Method	Pack Quantity
DTC123JE	E42	SOT-523	Reel	3000pcs/Reel
DTC123JUA	E42	SOT-323	Reel	3000pcs/Reel
DTC123JKA	E42	SOT-23-3L	Reel	3000pcs/Reel
DTC123JCA	E42	SOT-23	Reel	3000pcs/Reel

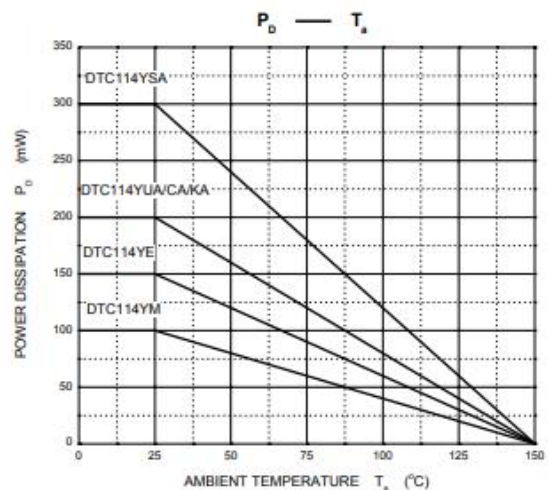
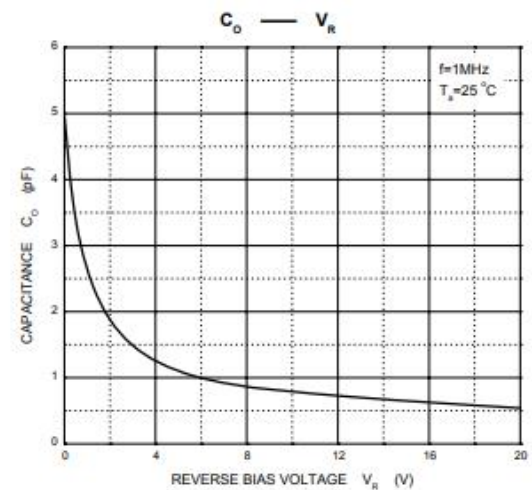
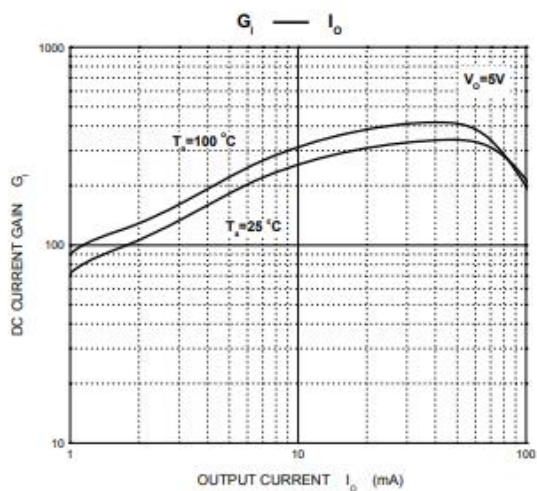
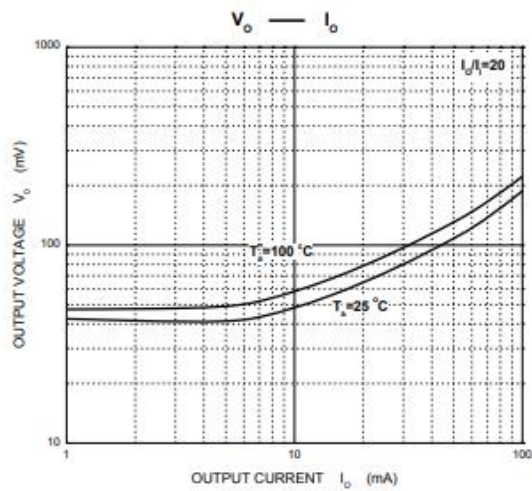
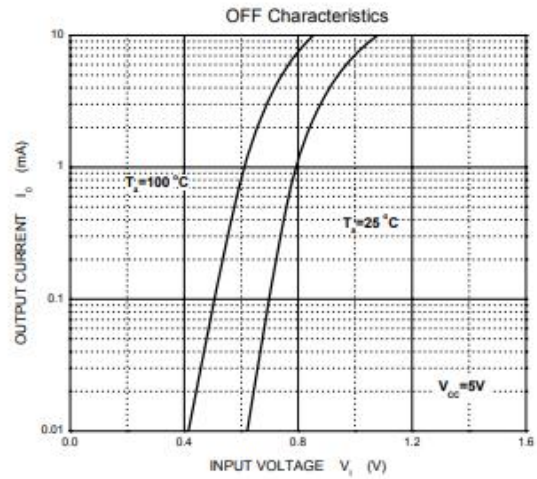
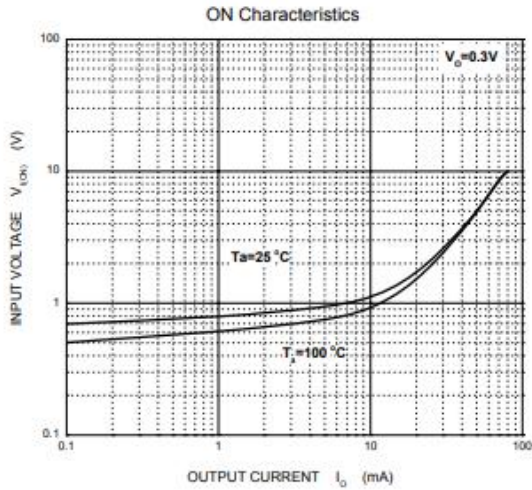
MAXIMUM RATINGS(Ta=25°C unless otherwise noted)

Symbol	Parameter	Limits(DTC123J□)						Unit
		M	E	UA	KA	CA	SA	
V _{CC}	Supply Voltage	50						V
V _{IN}	Input Voltage	-5~+12						V
I _o	Output Current	100						mA
P _D	Power Dissipation	100	150	200	200	200	300	mW
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150						°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Input voltage	V _{I(off)}	V _{CC} =5V, I _o =100μA	0.5			V
	V _{I(on)}	V _o =0.3V, I _o =5mA			1.1	V
Output voltage	V _{O(on)}	I _o /I _i =5mA/0.25mA		0.1	0.3	V
Input current	I _i	V _i =5V			3.6	mA
Output current	I _{O(off)}	V _{CC} =50V, V _i =0			0.5	μA
DC current gain	G _i	V _o =5V, I _o =10mA	80			
Input resistance	R ₁		1.54	2.2	2.86	kΩ
Resistance ratio	R ₂ /R ₁		17	21	26	
Transition frequency	f _r	V _o =10V, I _o =5mA, f=100MHz		250		MHz

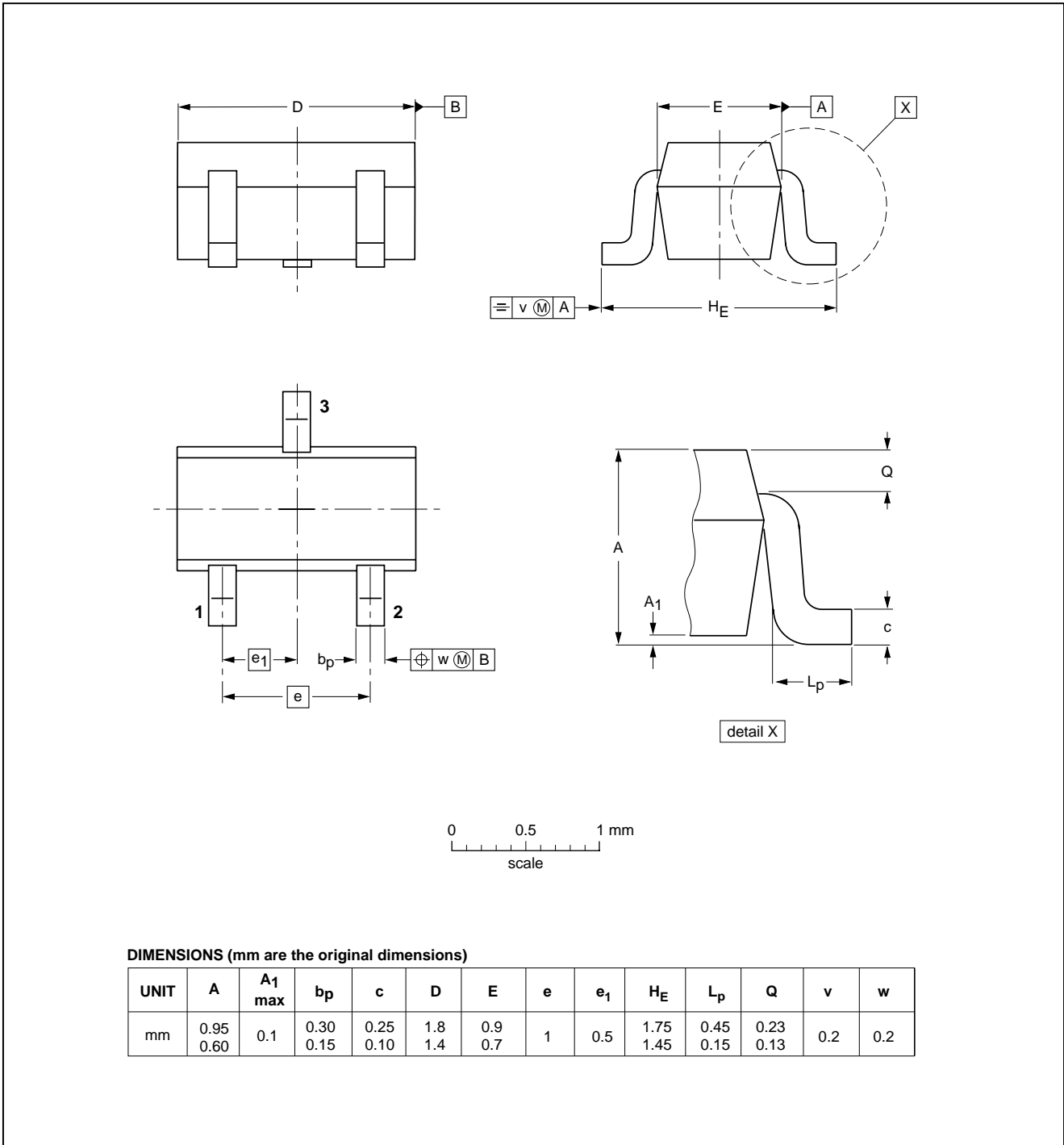
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-523



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[DTA113EM3T5G](#) [DTC113EM3T5G](#) [NSVMUN5135DW1T1G](#) [NSVMUN2237T1G](#) [NSVDTC143ZM3T5G](#) [SMUN5335DW1T2G](#)
[SMUN5216DW1T1G](#) [NSVMUN5316DW1T1G](#) [NSVMUN5215DW1T1G](#)