

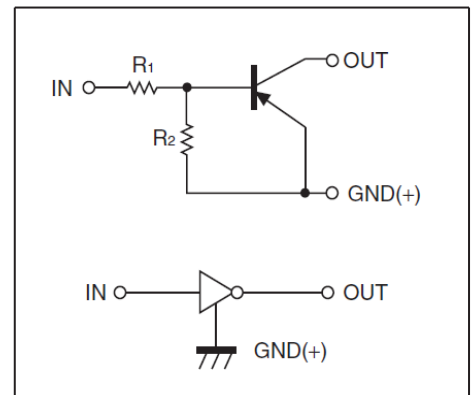
DTA143EM/DTA143EE/DTA143EUA DTA143EKA/DTA143ECA/DTA143ESA

DIGITAL TRANSISTOR (PNP)

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 positive 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

• Equivalent Circuit



Part Number	MARKING ⁽¹⁾	Package	Packing Method	Pack Quantity
DTA143EM	13	SOT-723	Reel	8000pcs/Reel
DTA143EE	13	SOT-523	Reel	3000pcs/Reel
DTA143EUA	13	SOT-323	Reel	3000pcs/Reel
DTA143EKA	13	SOT-23-3L	Reel	3000pcs/Reel
DTA143ECA	13	SOT-23	Reel	3000pcs/Reel
DTA143ESA	A143 ⁽²⁾ E•XXX	TO-92S	Bulk	1000pcs/Bag
DTA143ESA-TA	A143 ⁽²⁾ E•XXX	TO-92S	Tape	3000pcs/Box

Notes: (1). Solid dot = Green molding compound device, if none, the normal device.

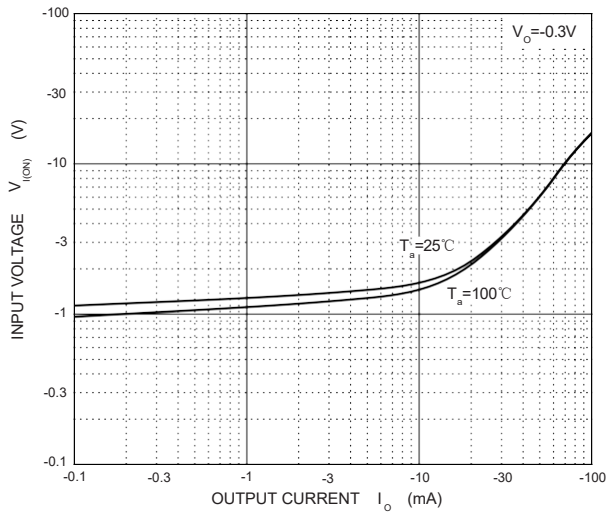
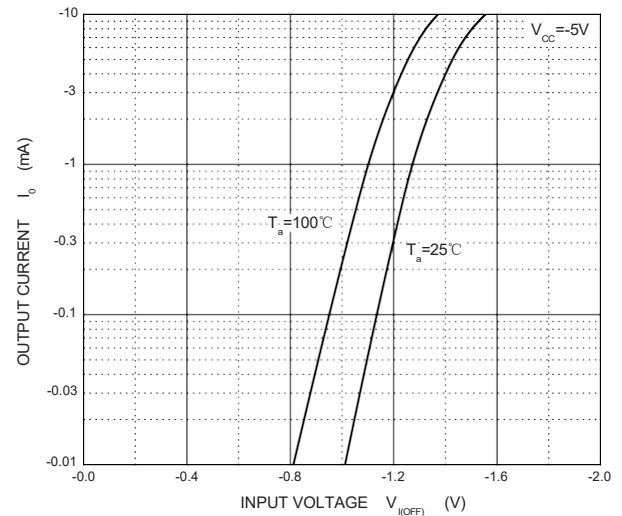
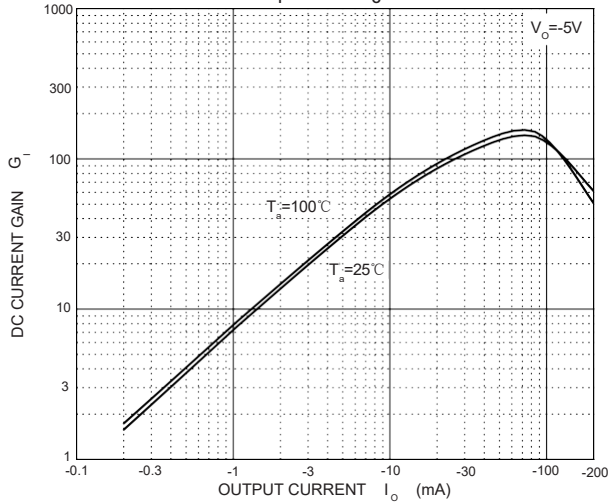
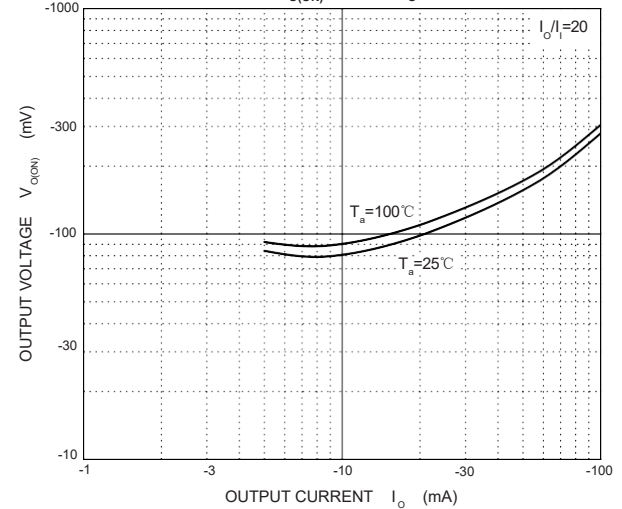
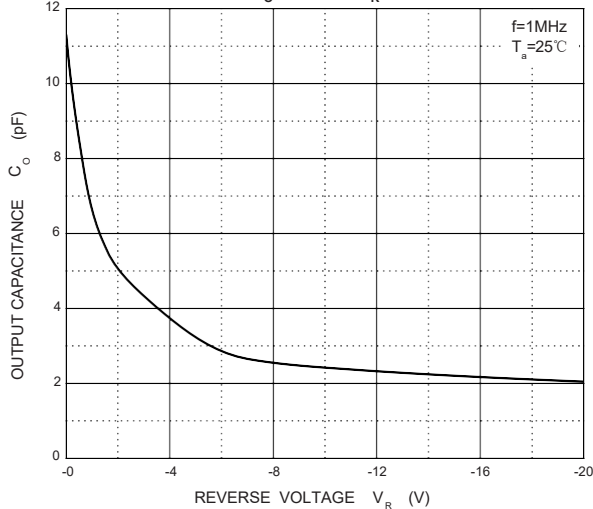
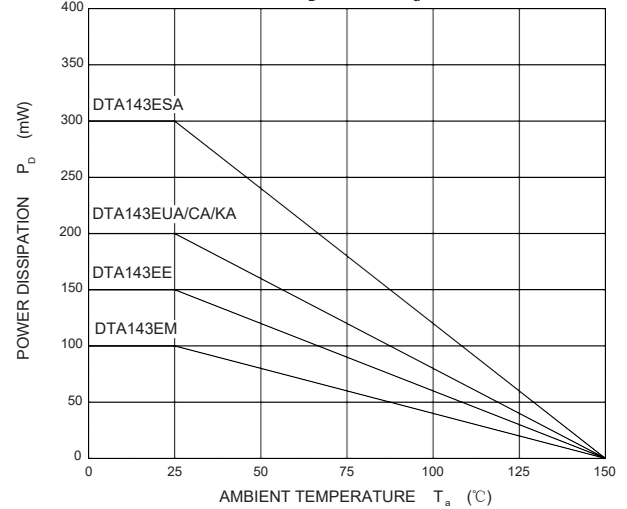
(2). XXX=Code

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

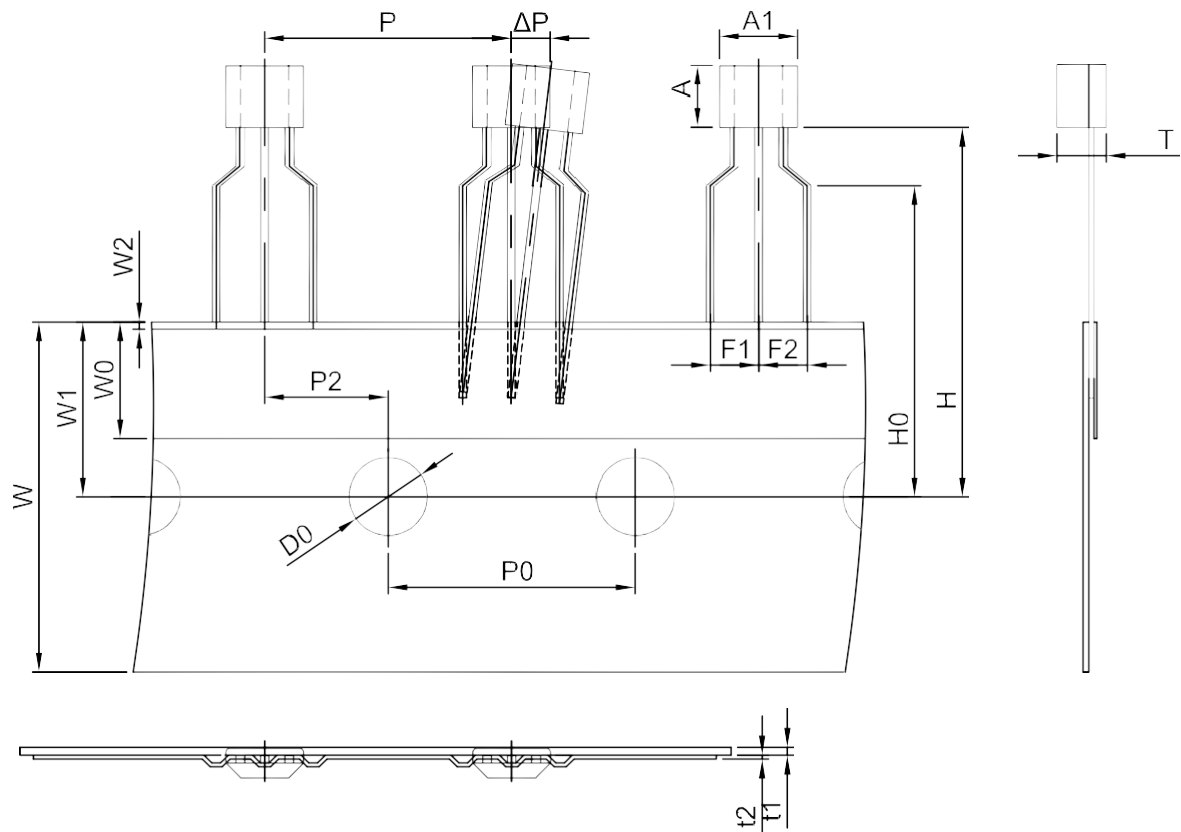
Symbol	Parameter	Limits(DTA143E□)						Unit
		M	E	UA	KA	CA	SA	
V_{CC}	Supply Voltage	-50						V
V_{IN}	Input Voltage	-30~+10						V
I_O	Output Current	-100						mA
P_D	Power Dissipation	100	150	200	200	200	300	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150						°C

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 =-20 mA			-3	V
Output voltage	V _{O(on)}	I _O /I _I =-10mA/-0.5mA			-0.3	V
Input current	I _I	V _I =-5V			-1.8	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	30			
Input resistance	R ₁		3.29	4.7	6.11	kΩ
Resistance ratio	R ₂ /R ₁		0.8	1	1.2	
Transition frequency	f _T	V _O =-10V, I _O =-5mA, f=100MHz		250		MHz

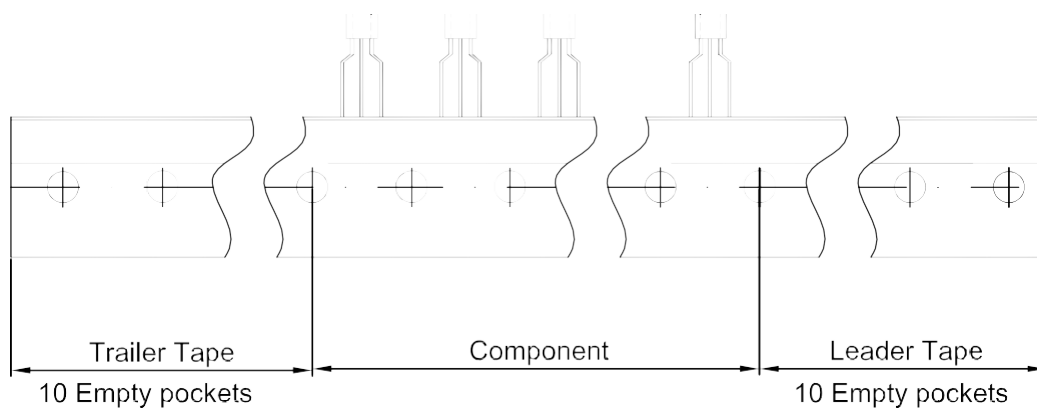
ON Characteristics

OFF Characteristics

 $G_I - I_O$

 $V_{O(ON)} - I_O$

 $C_O - V_R$

 $P_D - T_a$


TO-92S PACKAGE TAPING DIMENSION



Dimiensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.0	3.15	1.52	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size (mm)	Carton	Carton Size (mm)
TO-92S	3,000 pcs	330×184×40	30,000 pcs	505×405×240