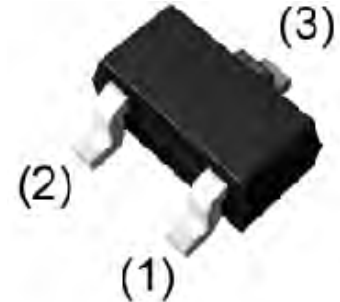


PNP Silicon Surface Mount Transistor

SOT-523 Digital Transistor (Built-in Resistors)

Green Product



1. IN
2. GND
3. OUT

SOT-523 (SC-75A)

Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

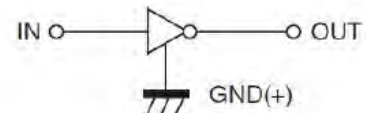
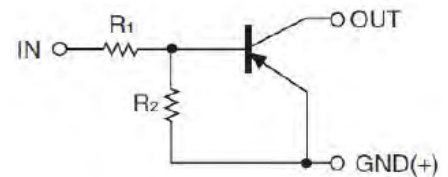
Symbol	Parameter	Value	Units
V_{CC}	Supply Voltage	-50	V
V_{IN}	Input Voltage	-30 ~ +5	V
I_o	Output Current	-100	mA
I_{CM}	Peak Collector Current	-100	mA
P_D	Power Dissipation	150	mW
T_J	Junction to Ambient	150	$^\circ\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$

These ratings are limiting values above which the serviceability of the device may be impaired.

FEATURES:

- Built-in resistors enable the configuration of a inverter circuit without connecting external input resistors.
- 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.
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Weight: approx. 0.002g

ELECTRICAL SYMBOL:



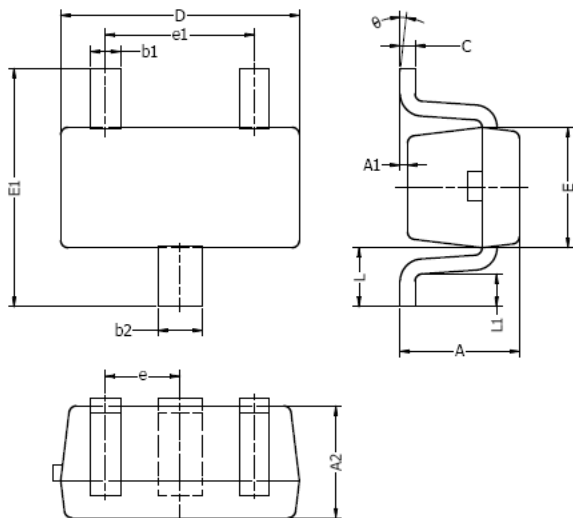
DEVICE MARKING CODE:

Device Type	Device Marking
DTA606E	E13

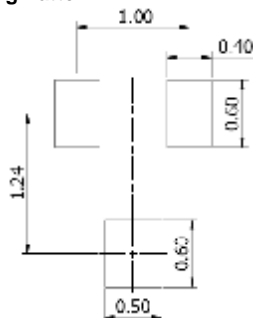
Electrical Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Limits			Unit
			Min	Typ	Max	
Input Voltage	V _{I(off)}	V _{CC} = -5V, I _O = -100uA	-0.5			V
	V _{I(on)}	V _O = -0.3V, I _O = -5mA			-1.3	V
Output Voltage	V _{O(on)}	I _O / I _I = -5mA/-0.25mA			-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	uA
DC Current Gain	G _I	V _O = -5V, I _O = -10mA	80			
Input Resistance	R ₁		3.29	4.7	6.11	KΩ
Resistance Ratio	R ₂ / R ₁		8	10	12	
Transition Frequency	f _T	V _O = -10V, I _O = -5mA f = 100MHz		250		MHz

SOT-523 Package Outline



Typical Soldering Pattern:



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.70	0.90	0.028	0.035
A1	0.00	0.10	0.000	0.004
A2	0.70	0.80	0.028	0.031
b1	0.15	0.25	0.006	0.010
b2	0.25	0.35	0.010	0.014
c	0.10	0.20	0.004	0.008
D	1.50	1.70	0.059	0.067
E	0.70	0.90	0.028	0.035
E1	1.45	1.75	0.057	0.069
e	0.50 TYP.		0.020 TYP.	
e1	0.90	1.10	0.035	0.043
L	0.40 REF.		0.016 REF.	
L1	0.10	0.30	0.004	0.012
θ	0°	8°	0°	8°

NOTES:

- Above package outline conforms to JEITA EAIJ ED-7500A SC-75A.
- Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.