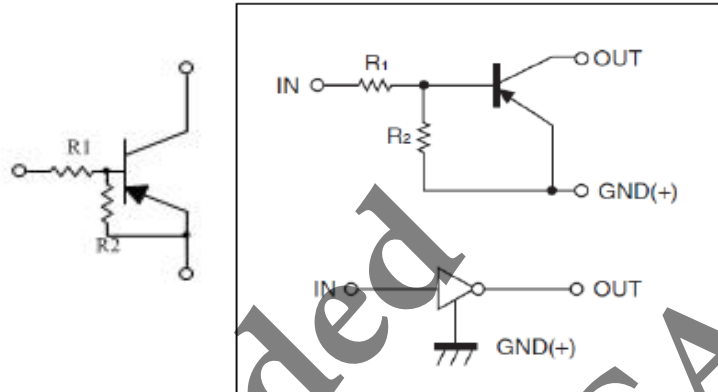


Small Signal Product

PNP Small Signal Transistor

FEATURES

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistor (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, marking device design easy.
- Packing code with suffix "G" means green compound (halogen-free)



Equivalent Circuit

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)						
PARAMETER	SYMBOL	VALUE				UNIT
		YM	YE	YUA / YCA	YSA	
Power Dissipation	P _D	100	150	200	300	mW
Supply Voltage	V _{CC}	-50				V
Input Voltage	V _{IN}	-12 ~ +5				V
Output Current	I _O	-100				mA
Junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 150				°C

Notes : 1. Valid provided that electrodes are kept at ambient temperature

PARAMETER	SYMBOL	MIN	TYP	MAX	CONDITION	UNIT
Input Voltage	V _{I(off)}	-0.3	-	-	V _{CC} = -5V , I _O = -100μA	V
	V _{I(on)}	-	-	-3	V _O = -0.3V , I _O = -20mA	
Output Voltage	V _{O(on)}	-	-	-0.3	I _O / I _I = -10mA / -0.5mA	V
Input Current	I _I	-	-	-3.8	V _I = -5V	mA
Output Current	I _{O(off)}	-	-	-0.5	V _{CC} = -50V , V _I = 0	μA
DC Current Gain	G _I	33	-	-	V _O = -5V , I _O = -10mA	
Input Resistance	R ₁	1.54	2.2	2.86		KΩ
Resistance Ratio	R ₂ /R ₁	3.6	4.5	5.5		
Transition Frequency	f _T	-	250	-	V _O = -10V , I _O = 5mA , f=100MHz	MHz

Small Signal Product

ORDERING INFORMATION

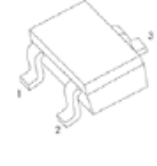
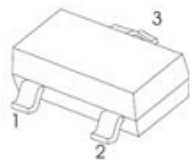
PART NO.	PART NO. SUFFIX (Note 1)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
DTA123YM	-xx	RM	G	SOT-723	8K / 7" Reel
DTA123YE		RS		SOT-523	3K / 7" Reel
DTA123YUA		RV		SOT-323	3K / 7" Reel
DTA123YCA		RU		SOT-23	3K / 7" Reel
DTA123YSA		A3		TO-92S	3K / Box (Ammo)
		B3			10K / Box (Bulk)

Note 1: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE

PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
DTA123YE RS	DTA123YE		RS		Multiple manufacture source
DTA123YE RSG	DTA123YE		RS	G	Multiple manufacture source Green compound
DTA123YE-M0 RSG	DTA123YE	M0	RS	G	Defined manufacture source Green compound

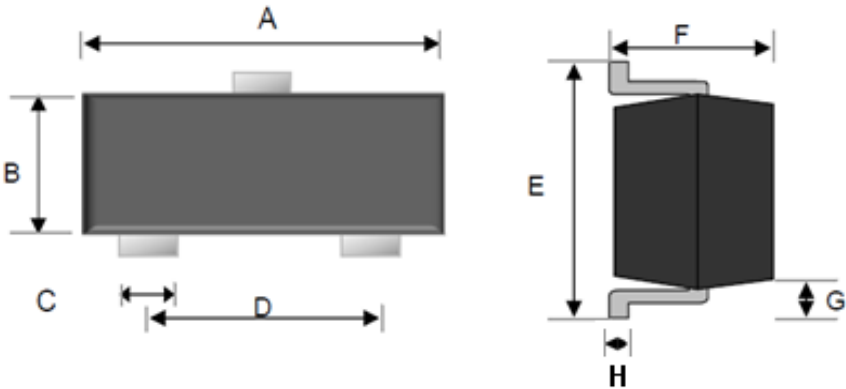
PIN CONNENCTIONS AND MARKING

DTA123YM  MARKING: 52	SOT -723 1. IN 2. GND 3. OUT	DTA123YE  MARKING: 52	SOT -523 1. IN 2. GND 3. OUT
DTA123YUA  MARKING: 52	SOT -323 1. IN 2. GND 3. OUT		
DTA123YCA  MARKING: 52	SOT-23 1. IN 2. GND 3. OUT	DTA123YSA MARKING: A123 Y041 MARKING(HF): A123 Y-041	TO-92S  1. GND 2. OUT 3. IN

Small Signal Product

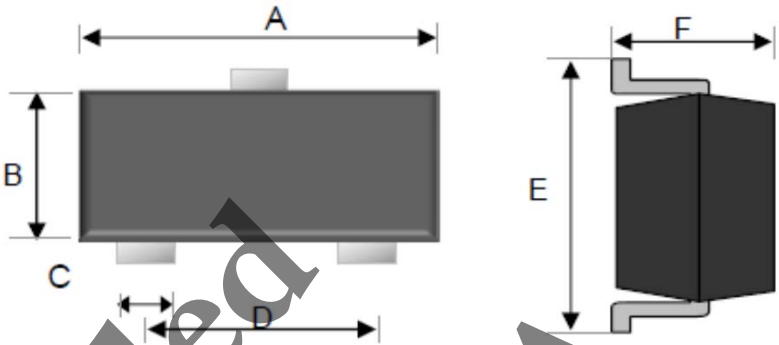
PACKAGE OUTLINE DIMENSION

SOT-23



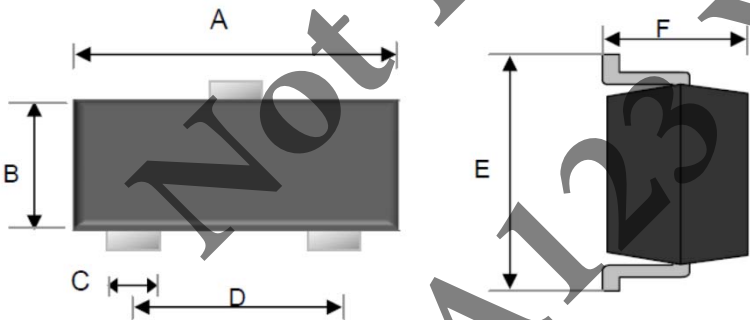
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.10 REF		0.004 REF	

SOT-323



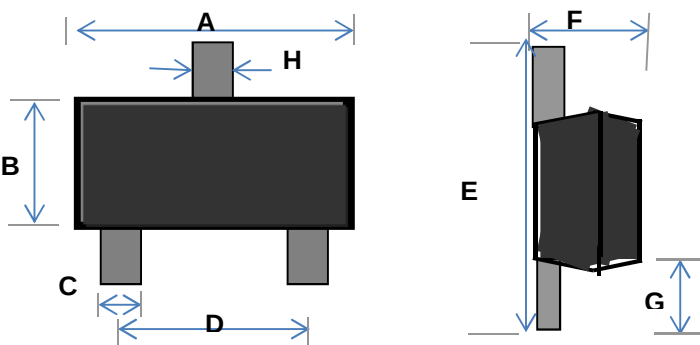
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.80	2.20	0.071	0.087
B	1.15	1.35	0.045	0.053
C	0.15	0.40	0.006	0.016
D	1.20	1.40	0.047	0.055
E	2.00	2.45	0.079	0.096
F	0.80	1.10	0.031	0.043

SOT-523



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.50	1.70	0.059	0.067
B	0.70	0.90	0.028	0.035
C	0.15	0.35	0.006	0.014
D	0.90	1.10	0.035	0.043
E	1.45	1.75	0.057	0.069
F	0.62	0.95	0.024	0.037

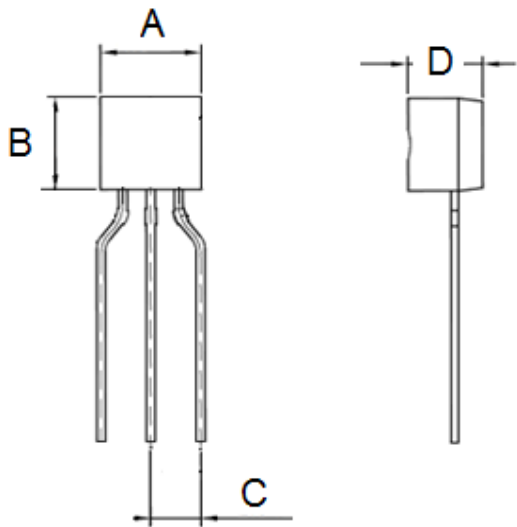
SOT-723



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.25	0.045	0.049
B	0.75	0.85	0.030	0.033
C	0.15	0.27	0.006	0.011
D	0.80 TYP.		0.031 TYP.	
E	1.15	1.25	0.045	0.049
F	0.43	0.55	0.017	0.022
G	0.15	0.25	0.006	0.010
H	0.25	0.37	0.010	0.015

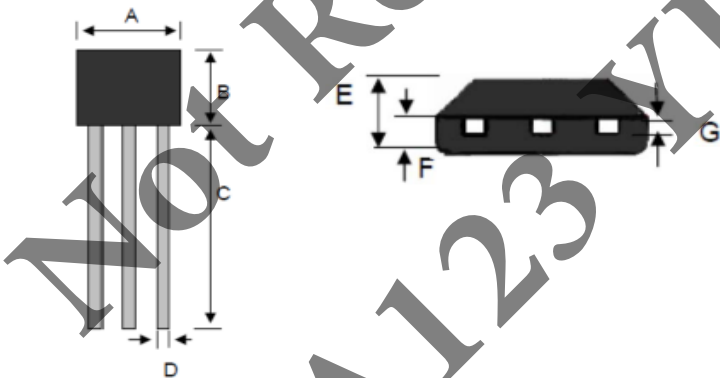
Small Signal Product

TO-92S (Ammo)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.90	4.10	0.154	0.161
B	3.25	3.05	0.128	0.120
C	2.20	2.80	0.087	0.110
D	1.62	1.42	0.064	0.056

TO-92S (Bulk)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.90	4.10	0.154	0.161
B	3.05	3.25	0.120	0.128
C	15.10	15.50	0.594	0.610
D	0.35	0.48	0.014	0.019
E	1.42	1.62	0.056	0.064
F	0.66	0.86	0.026	0.034
G	0.36	0.51	0.014	0.020

Not Recommended
DTA123 YE/YUA/YCA

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