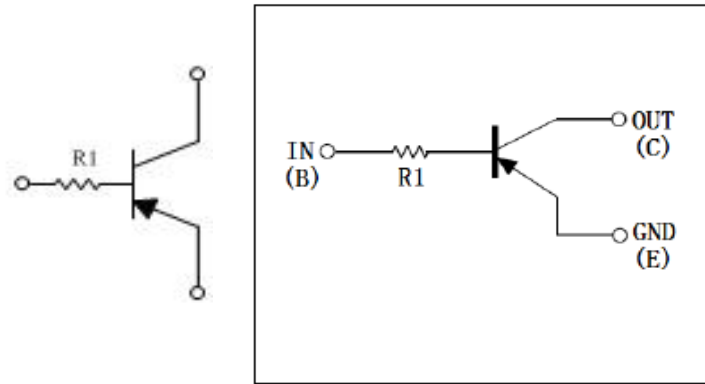


**Features**

- ◇ 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.
- ◇ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code.

Equivalent Circuit



**Ordering Information (example)**

Part No.	Package	Packing	Packing code	Packing code (Green)	Marking	Manufacture code
DTA144 TM	SOT-723	8K / 7" Reel	RM	RMG	96	M0

Note : Detail please see "Ordering Information(detail, example)" below.

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value				Unit
		TM	TE	TUA / TCA	TSA	
Power Dissipation	$P_D$	100	150	200	300	mW
Collector-Base Voltage	$V_{CBO}$	-50				V
Collector-Emitter Voltage	$V_{CEO}$	-50				V
Collector Current	$I_C$	-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

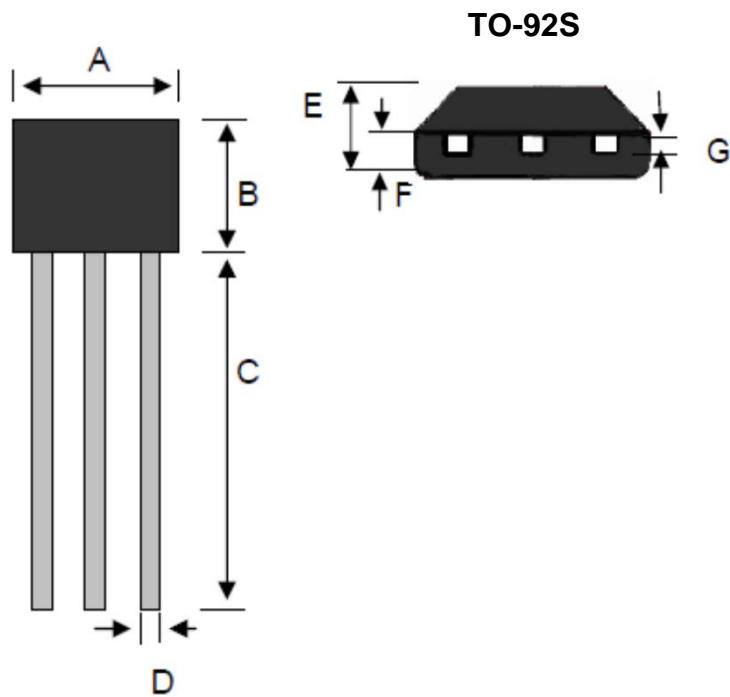
Parameter	Symbol	Min	Typ	Max	Condition	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-50			$I_C = -50\mu A, I_E = 0$	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50			$I_C = -1mA, I_B = 0$	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			$I_E = -50\mu A, I_C = 0$	V
Collector Cut-Off Current	$I_{CBO}$			-0.5	$V_{CB} = -50V, I_E = 0$	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$			-0.5	$V_{EB} = -4V, I_C = 0$	$\mu A$
DC Current Gain	$V_{CE(sat)}$			-0.3	$I_C = -5mA, I_B = -0.5mA$	V
Input Resistance	$h_{FE}$	100	300	600	$V_{CE} = -5V, I_C = -1mA$	
Resistance Ratio	$R_1$	32.9	47	61.1		K $\Omega$
Transition Frequency	$f_T$		250		$V_{CE} = -10V, I_E = 5mA, f = 100MHz$	MHz

**Ordering information**

Part No.	Package	Packing	Packing code	Packing code (Green)	Marking	Manufacture code (Note)
DTA144 TM	SOT-723	8K / 7" Reel	RM	RMG	96	
DTA144 TE	SOT-523	3K / 7" Reel	RN	RNG	96	
DTA144 TUA	SOT-323	3K / 7" Reel	RV	RVG	96	
DTA144 TCA	SOT-23	3K / 7" Reel	RU	RUG	96	
DTA144 TSA	TO-92S	3K / Box(Ammo)	A3	A3G		
DTA144 TM	SOT-723	8K / 7" Reel	RM	RMG	96	M0
DTA144 TE	SOT-523	3K / 7" Reel	RN	RNG	96	M0
DTA144 TUA	SOT-323	3K / 7" Reel	RV	RVG	96	M0
DTA144 TCA	SOT-23	3K / 7" Reel	RU	RUG	96	M0
DTA144 TSA	TO-92S	3K / Box(Ammo)	A3	A3G		M0

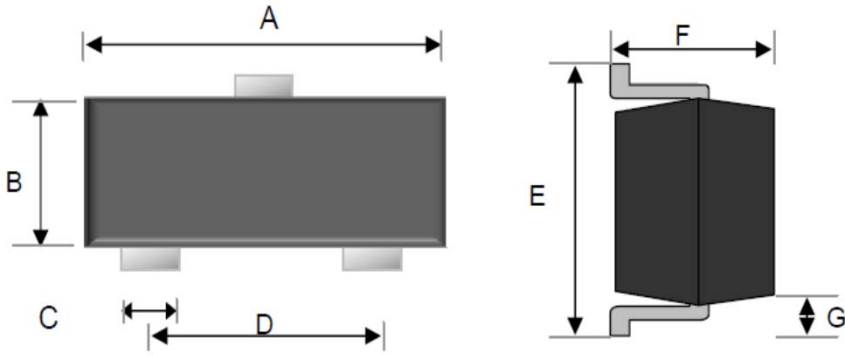
Note : Manufacture special control, if empty means no special control requirement.

**Dimensions**



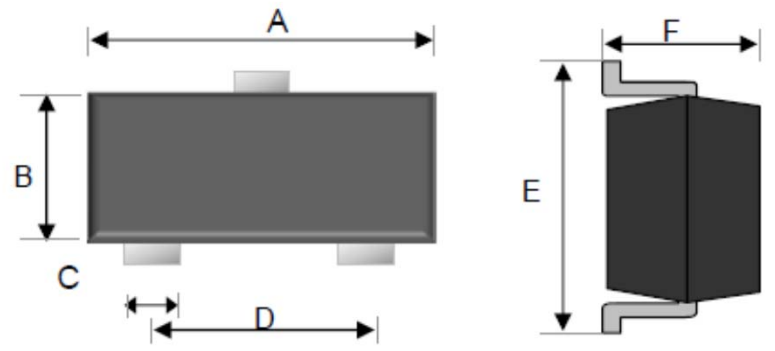
DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	3.85	4.15	0.15	0.16
B	3.01	3.31	0.12	0.13
C	15.10	15.50	0.59	0.61
D	0.38	0.55	0.01	0.02
E	1.42	1.62	0.06	0.06
D	0.66	0.86	0.03	0.03
E	0.36	0.51	0.01	0.02

**SOT-23**



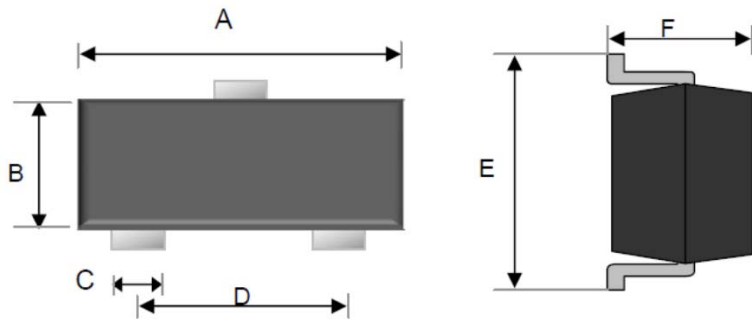
DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.80	3.00	0.11	0.12
B	1.20	1.40	0.05	0.06
C	0.30	0.50	0.01	0.02
D	1.80	2.00	0.07	0.08
E	2.25	2.55	0.09	0.10
F	0.90	1.20	0.04	0.04
G	0.550 REF		0.022 REF	

**SOT-323**



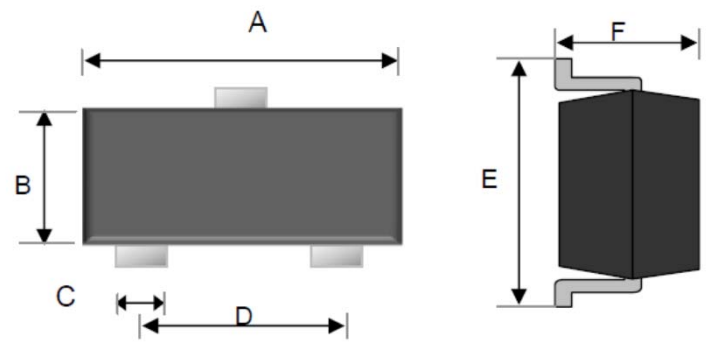
DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	1.90	2.10	0.07	0.08
B	1.15	1.35	0.05	0.05
C	0.25	0.35	0.01	0.01
D	1.20	1.40	0.05	0.06
E	2.00	2.20	0.08	0.09
F	0.80	1.00	0.03	0.04

**SOT-523**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	1.50	1.70	0.06	0.07
B	0.70	0.80	0.03	0.03
C	0.25	0.35	0.01	0.01
D	0.90	1.10	0.04	0.04
E	1.50	1.70	0.06	0.07
F	0.70	0.90	0.03	0.04

**SOT-723**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	1.15	1.25	0.05	0.05
B	0.75	0.85	0.03	0.03
C	0.17	0.27	0.01	0.01
D	0.8 TYP		0.31 TYP	
E	1.15	1.25	0.05	0.05
F		0.50		0.02