

Small Signal Diode

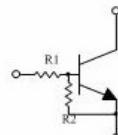
Features

- ◊ 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, making device design easy.
- ◊ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code.

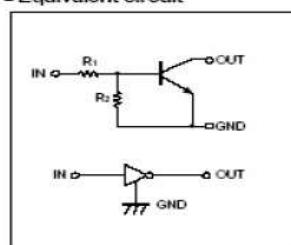
Ordering Information

Package	Part No.	Packing	Marking
SOT-723	DTA144 EM	8K / 7" Reel	16
SOT-523	DTA144 EE	3K / 7" Reel	16
SOT-323	DTA144 EUA	3K / 7" Reel	16
SOT-23	DTA144 ECA	3K / 7" Reel	16
TO-92S	DTA143 ESA	3K / 7" Reel	

DTA144 EM/EE/EUA/ECA/ESA PNP Small Signal Transistor



● Equivalent circuit



Maximum Ratings and Electrical Characteristics

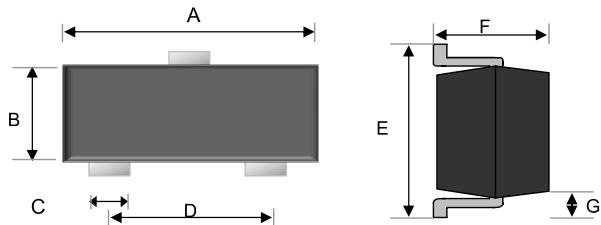
Rating at 25°C ambient temperature unless otherwise specified.

Type Number	Symbol	Value					Units
		EM	EE	EUA	ECA	ESA	
Power Dissipation	PD	100	150	200	200	300	mW
Supply Voltage	V _{CC}			-50			V
Input Voltage	V _{IN}			-40~10			V
Output Current	I _O			-100			mA
Junction and Storage Temperature Range	T _J , T _{STG}			-55 to + 150			°C

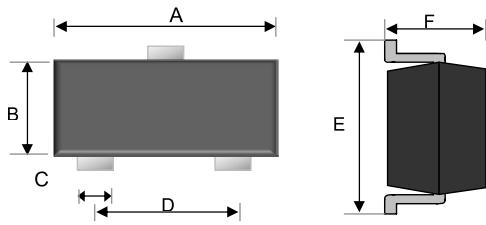
Notes:1. Valid provided that electrodes are kept at ambient temperature

Parameter	Symbol	Min	Typ	Max	Condition	Unit
Input Voltage	V _{I(off)}	-0.5			V _{CC} =-5V,I _O =-100μA	V
	V _{I(on)}			-3	V _O =-0.3V,I _O =-2mA	V
Output Voltage	V _{O(on)}			-0.3	I _O /I _I =-10mA/-0.5mA	V
Input Current	I _I			-0.18	V _I =-5V	mA
Output Current	I _{O(off)}			-0.5	V _{CC} =-50V,V _I =0	μA
DC Current Gain	G _I	68			V _O =-5V,I _O =-10mA	
Input Resistance	R _I	32.9	47	61.1		KΩ
Resistance Ratio	R ₂ /R ₁	0.8	1	1.2		
Transition Frequency	f _T		250		V _O =-10V,I _O =5mA,f=100MHz	MHz

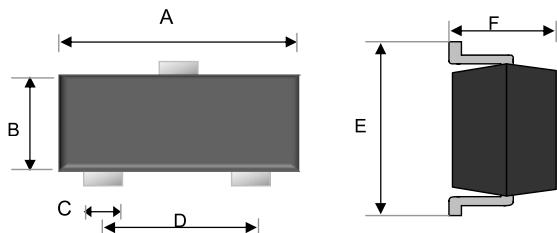
SOT-23



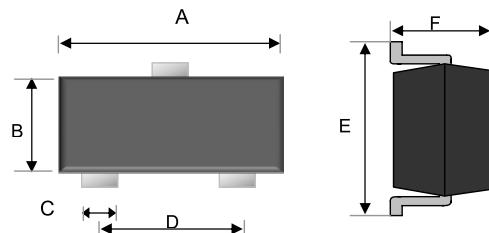
SOT-323



SOT-523



SOT-723



Dimensions	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

Dimensions	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		0.31TYP	
E	1.15	1.25	0.05	0.05
F			0.50	
				0.02

TO-92S

