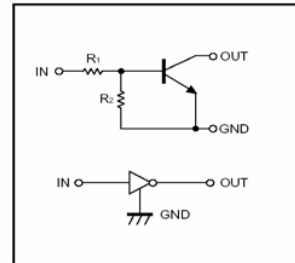


FEATURES

- * Built-in bias resistors enable the configuration of an inverter circuit without connecting input resistors (see equivalent circuit).
- * Only the on/off conditions need to be set for operation, making device design easy.
- * 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.

●Equivalent circuit



PIN CONNENCTIONS AND MARKING

DTC114WE



SOT-523

Abbreviated symbol: 84

DTC114WUA

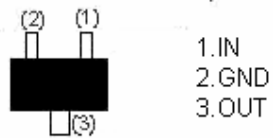


SOT-323

Abbreviated symbol: 84

DTC114WKA

SOT-23
SOT-23-3L



Abbreviated symbol: 84

DTC114WCA

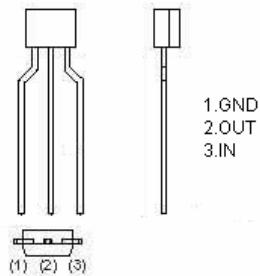
SOT-23



Abbreviated symbol: 84

DTC114WSA

TO-92S



Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits (DTC114W)					Unit
		E	UA	CA	KA	SA	
Supply voltage	V _{CC}	50					V
Input voltage	V _{IN}	-10~30					V
Output current	I _O	100					mA
	I _{C(MAX)}	100					
Power dissipation	P _d	150	200		300		mW
Junction temperature	T _j	150					°C
Storage temperature	T _{stg}	-55~150					°C

Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Input voltage	V _{I(off)}			0.8	V	V _{CC} =5V, I _O =100μA
	V _{I(on)}	3				V _O =0.3V, I _O =2 mA
Output voltage	V _{O(on)}		0.1	0.3	V	I _O /I _I =10mA/0.5mA
Input current	I _I			0.88	mA	V _I =5V
Output current	I _{O(off)}			0.5	μA	V _{CC} =50V, V _I =0
DC current gain	G ₁	24				V _O =5V, I _O =10mA
Input resistance	R ₁	7	10	13	KΩ	
Resistance ratio	R ₂ /R ₁	0.37	0.47	0.57		
Transition frequency	f _T		250		MHz	V _O =10V, I _O =5mA, f=100MHz