

DTA115E

PNP EPITAXIAL SILICON TRANSISTOR

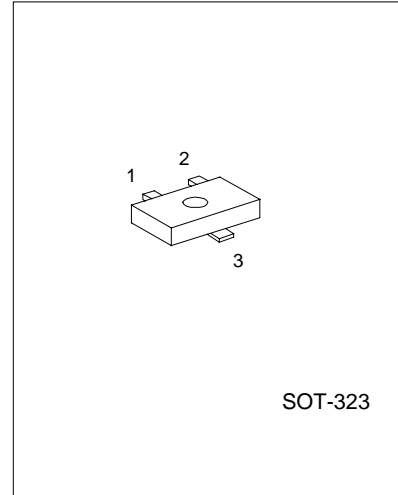
PNP DIGITAL TRANSISTOR (BUILT-IN RESISTORS)

■ FEATURES

*Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors (see the equivalent circuit).

*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.

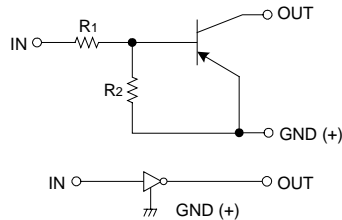
*Only the on / off conditions need to be set for operation, making device design easy.



SOT-323

*Pb-free plating product number:DTA115EL

■ EQUIVALENT CIRCUIT



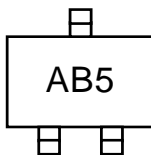
■ PIN CONFIGURATION

PIN NO.	PIN NAME
1	GND
2	IN
3	OUT

■ ORDERING INFORMATION

Order Number		Package	Packing
Normal	Lead free		
DTA115E-AL3-R	DTA115EL-AL3-R	SOT-323	Tape Reel

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V _{CC}	-50	V
Input Voltage	V _{IN}	-40~+10	V
Output Current	I _{OUT}	-20	mA
	I _{C(max)}	-100	
Power Dissipation	P _D	200	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-40 ~ +150	°C

■ ELECTRICAL CHARACTERISTICS (Ta= 25°C, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	V _{IN(off)}	V _{CC} = -5V, I _{OUT} =-100 μA			-0.5	V
	V _{IN(ON)}	V _{OUT} = -0.3V, I _{OUT} = -1mA	-3			
Output Voltage	V _{OUT(ON)}	I _{OUT} = -5mA, I _{IN} = -0.25 mA		-0.1	-0.3	V
Input Current	I _{IN}	V _{IN} = -5V			-0.15	mA
Output Current	I _{OUT(off)}	V _{CC} = -50V, V _{IN} =0V			-0.5	μA
DC Current Gain	G _I	V _{OUT} = -5V, I _{OUT} = -5mA	82			
Input Resistance	R ₁		70	100	130	kΩ
Resistance Ratio	R ₂ /R ₁		0.8	1	1.2	
Transition Frequency	f _T	V _{CE} = -10 V, I _E = 5mA, f=100MHz *		250		MHz

*Transition frequency of the device

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