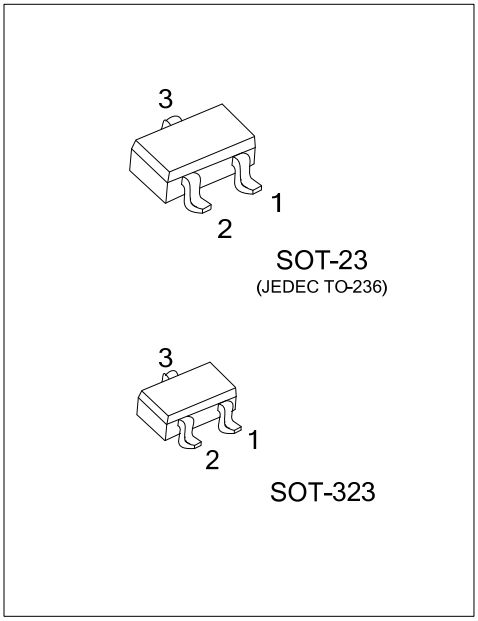
DTA115E

PNP EPITAXIAL SILICON TRANSISTOR

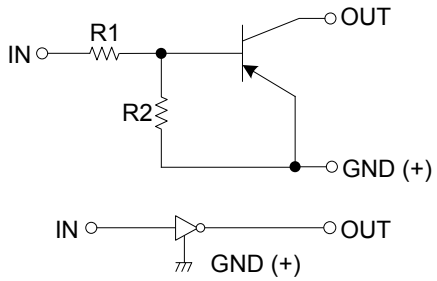
PNP DIGITAL TRANSISTOR (BUILT-IN RESISTORS)



■ 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.

■ EQUIVALENT CIRCUIT



■ ORDERING INFORMATION

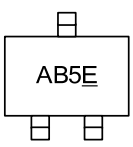
Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
DTA115EG-AE3-R	SOT-23	G	I	O	Tape Reel
DTA115EG-AL3-R	SOT-323	G	I	O	Tape Reel

Note: Pin Assignment: G: GND I: IN O: OUT

DTA115EG-AE3-R
(1)Packing Type
(2)Package Type
(3)Green Package

(1) R: Tape Reel
(2) AE3: SOT-23, AL3: SOT-323
(3) G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUATE MAXIUM RATINGS (T_A= 25°C, unless otherwise specified)

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

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{IN(OFF)}$	V_{CC}= -5V, I_{OUT}=-100μA			-0.5	V
	$V_{IN(ON)}$	V_{OUT}= -0.3V,I_{OUT}= -1mA	-3			
Output Voltage	$V_{OUT(ON)}$	I_{OUT}= -5mA, I_{IN}= -0.25mA		-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 (Note)		250		MHz

Note: Transition frequency of the device