

DTA143Z

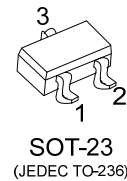
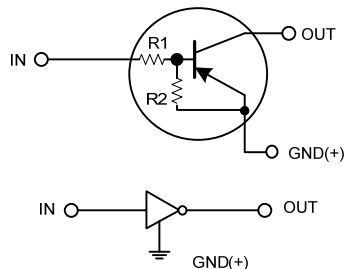
PNP SILICON TRANSISTOR

DIGITAL TRANSISTORS (BUILT- IN BIAS RESISTORS)

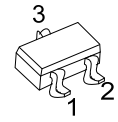
FEATURES

- * Built-in bias resistors that implies easy ON/OFF applications.
- * The bias resistors are thin-film resistors with complete isolation to allow positive input.

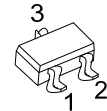
EQUIVALENT CIRCUIT



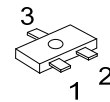
SOT-23
(JEDEC TO-236)



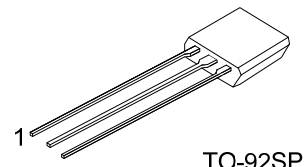
SOT-323



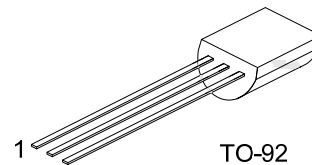
SOT-523



SOT-723



TO-92SP



TO-92

ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
DTA143ZL-AE3-R	DTA143ZG-AE3-R	SOT-23	I	G	O	Tape Reel
DTA143ZL-AL3-R	DTA143ZG-AL3-R	SOT-323	I	G	O	Tape Reel
DTA143ZL-AN3-R	DTA143ZG-AN3-R	SOT-523	I	G	O	Tape Reel
DTA143ZL-AQ3-R	DTA143ZG-AQ3-R	SOT-723	I	G	O	Tape Reel
DTA143ZL-T92-B	DTA143ZG-T92-B	TO-92	G	O	I	Tape Box
DTA143ZL-T92-K	DTA143ZG-T92-K	TO-92	G	O	I	Bulk
DTA143ZL-T9S-K	DTA143ZG-T9S-K	TO-92SP	G	O	I	Bulk

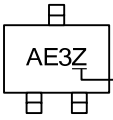
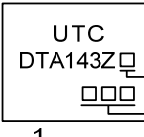
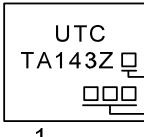
Note: Pin Assignment: I: IN G: GND O: OUT

DTA143ZG-AE3-R

- (1) Packing Type
- (2) Package Type
- (3) Green Package

- (1) B: Tape Box, K: Bulk, R: Tape Reel
- (2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523, AQ3: SOT-723, T92: TO-92, T9S: TO-92SP
- (3) G: Halogen Free and Lead Free, L: Lead Free

MARKING

SOT-23 / SOT-323 SOT-523 / SOT-723	TO-92	TO-92SP
 AE3Z Z: Lead Free Z: Halogen Free	 UTC DTA143Z L: Lead Free G: Halogen Free Date Code	 UTC TA143Z L: Lead Free G: Halogen Free Date Code

■ **ABSOLUTE MAXIMUM RATINGS** ($T_A = 25^\circ\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Supply Voltage		V_{CC}	-50	V
Input Voltage		V_{IN}	-30 ~ +5	V
Output Current		$I_{OUT(MAX)}$	-100	mA
Power Dissipation	SOT-23/SOT-323	P_D	200	mW
	SOT-523		150	
	SOT-723		100	
	TO-92		625	
	TO-92SP		550	
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55 ~ +150	$^\circ\text{C}$

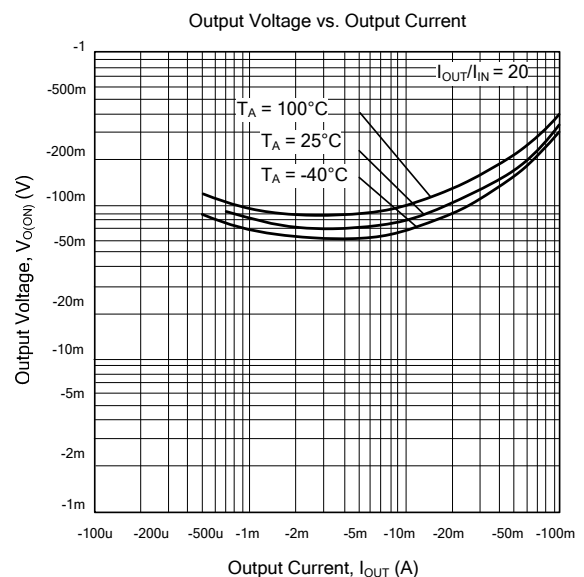
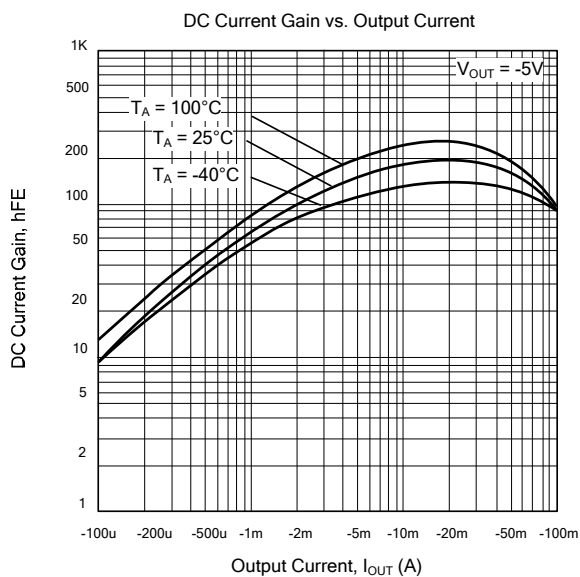
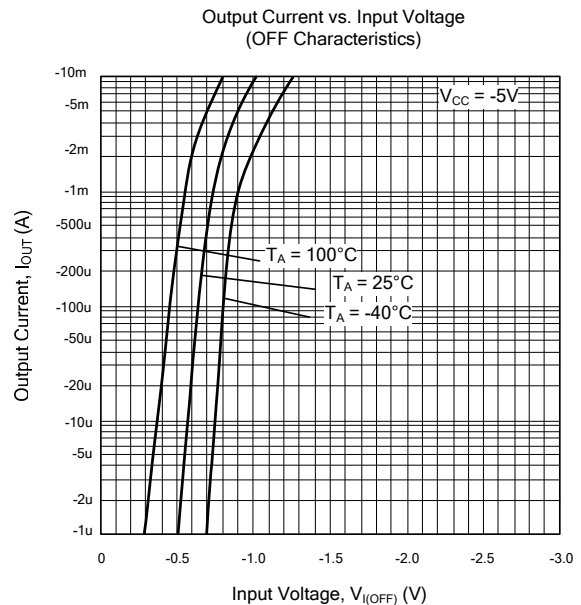
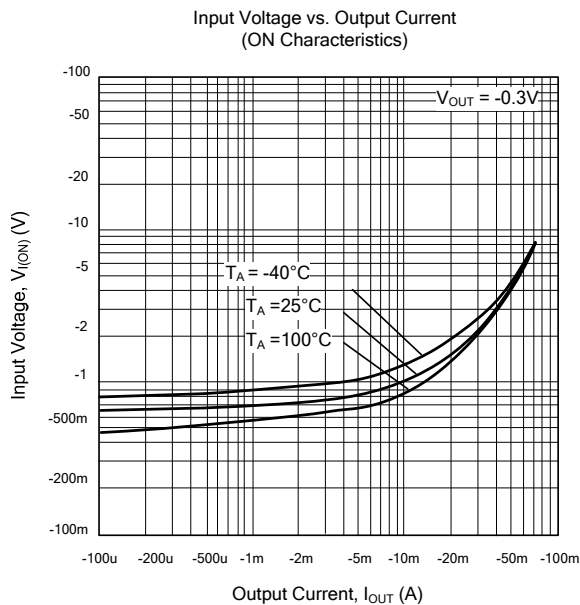
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **ELECTRICAL CHARACTERISTICS** ($T_A = 25^\circ\text{C}$, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	$V_{IN(OFF)}$	$V_{CC} = -5V, I_{OUT} = -100\mu A$			-0.5	V
	$V_{IN(ON)}$	$V_{OUT} = -0.3V, I_{OUT} = -5mA$	-1.3			
Output Voltage	$V_{OUT(ON)}$	$I_{OUT}/I_{IN} = -5mA/-0.25mA$		-0.1	-0.3	V
Input Current	I_{IN}	$V_{IN} = -5V$			-1.8	mA
Output Current	$I_{OUT(OFF)}$	$V_{CC} = -50V, V_{IN} = 0V$			-0.5	μA
DC Current Gain	h_{FE}	$V_{OUT} = -5V, I_{OUT} = -10mA$	80			
Input Resistance	R_1		3.29	4.7	6.11	k Ω
Resistance Ratio	R_2/R_1		8	10	12	
Transition Frequency	f_T	$V_{CE} = -10V, I_E = -5mA, f = 100MHz$ (Note)		250		MHz

Note: Transition frequency of the device

■ TYPICAL CHARACTERISTICS



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