



# DTA143T

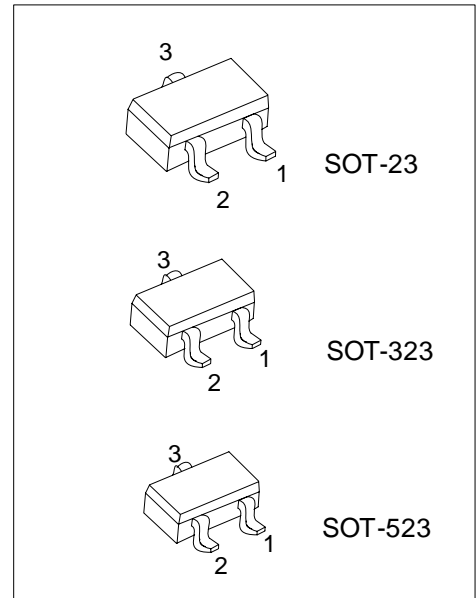
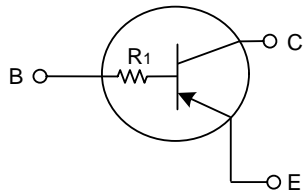
## PNP SILICON TRANSISTOR

### 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



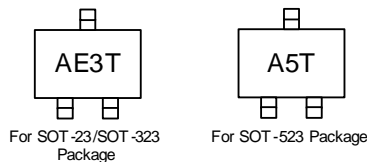
\* Pb-free plating product number: DTA143TL

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
DTA143T-AE3-R	DTA143TL-AE3-R	SOT-23	E	B	C	Tape Reel
DTA143T-AL3-R	DTA143TL-AL3-R	SOT-323	E	B	C	Tape Reel
DTA143T-AN3-R	DTA143TL-AN3-R	SOT-523	E	B	C	Tape Reel

<p>DTA143TL-AE3-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Lead Plating</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523</p> <p>(3) L: Lead Free Plating, Blank: Pb/Sn</p>
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C , unless otherwise specified )

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	-50	V
Collector-Emitter Voltage		$V_{CEO}$	-50	V
Emitter-Base Voltage		$V_{EBO}$	-5	V
Collector Current		$I_C$	-100	mA
Collector Power Dissipation	SOT-523	$P_C$	150	mW
	SOT-23/SOT-323		200	mW
Junction Temperature		$T_J$	+150	
Storage Temperature		$T_{STG}$	-55~+150	

Note Absolute maximum ratings are those values beyond which the device could be permanently damaged.

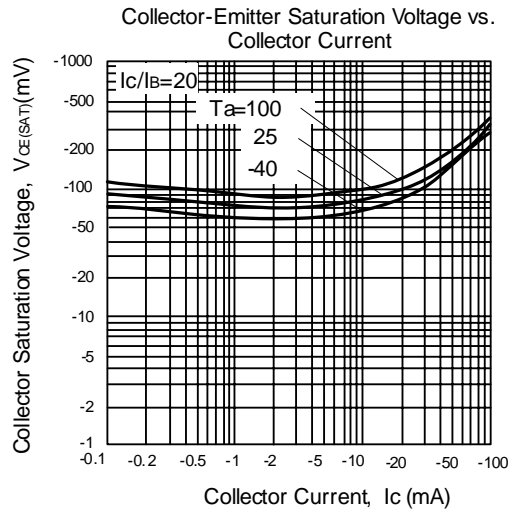
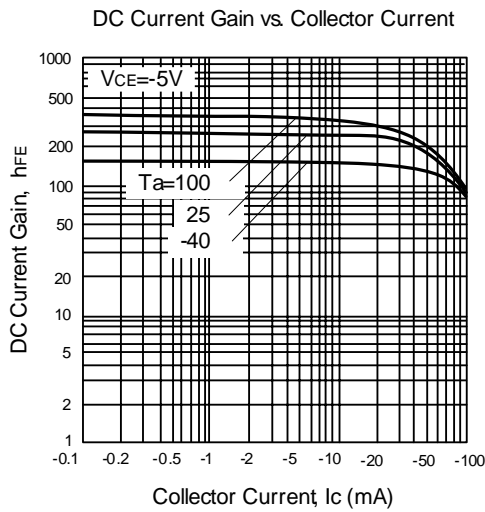
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$BV_{CBO}$	$I_C = -50 \mu A$	-50			V
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C = -1mA$	-50			V
Emitter-base breakdown voltage	$BV_{EBO}$	$I_E = -50 \mu A$	-5			V
Collector cutoff current	$I_{CBO}$	$V_{CB} = -50V$			-0.5	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -4V$			-0.5	$\mu A$
Collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C = -5mA, I_B = -0.25mA$			-0.3	V
DC Current Gain	$h_{FE}$	$V_{CE} = -5V, I_C = -1mA$	100	250	600	
Input resistance	$R_1$		3.29	4.7	6.11	k
Transition frequency	$f_T$	$V_{CE} = -10V, I_E = 5mA, f = 100MHz$ *		250		MHz

\* Transition frequency of the device

### ■ TYPICAL CHARACTERISTICS



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