



DTA143T

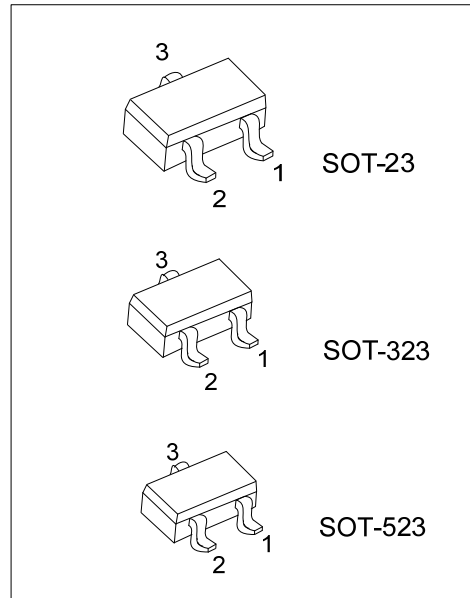
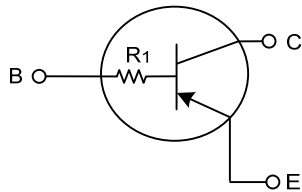
PNP SILICON TRANSISTOR

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



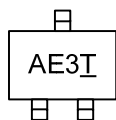
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
DTA143TG-AE3-R	SOT-23	E	C	B	Tape Reel
DTA143TG-AL3-R	SOT-323	E	C	B	Tape Reel
DTA143TG-AN3-R	SOT-523	E	C	B	Tape Reel

Note: Pin Assignment: E: Emitter B: Base C: Collector

<p>DTA143TG-AE3-R</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523</p> <p>(3) G: Halogen Free and Lead Free</p>
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■ MARKING



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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CB0}	-50	V
Collector-Emitter Voltage		V_{CE0}	-50	V
Emitter-Base Voltage		V_{EB0}	-5	V
Collector Current		I_C	-100	mA
Collector Power Dissipation	SOT-23/SOT-323	P_C	200	mW
	SOT-523		150	mW
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-40~+150	$^\circ\text{C}$

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

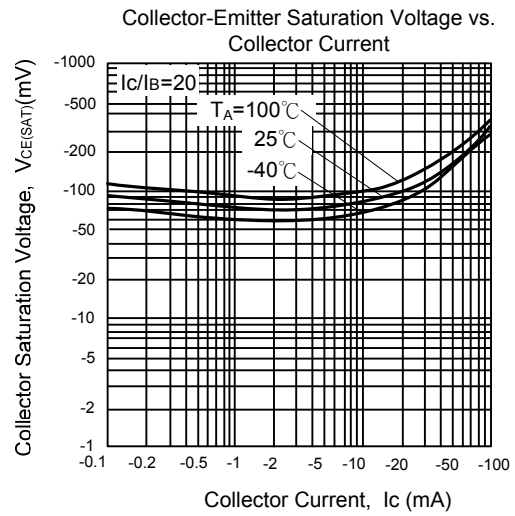
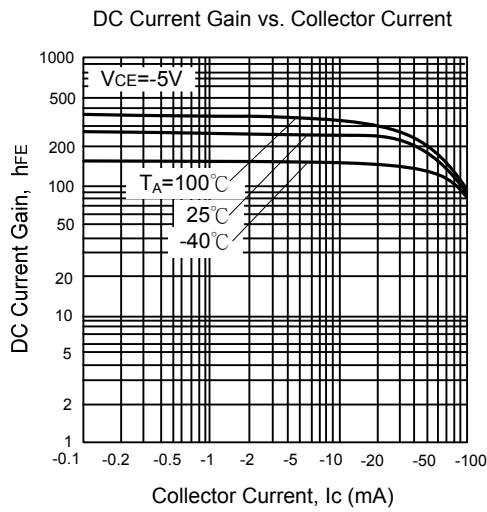
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	BV_{CB0}	$I_C=-50\mu\text{A}$	-50			V
Collector-emitter breakdown voltage	BV_{CE0}	$I_C=-1\text{mA}$	-50			V
Emitter-base breakdown voltage	BV_{EB0}	$I_E=-50\mu\text{A}$	-5			V
Collector cutoff current	I_{CB0}	$V_{CB}=-50\text{V}$			-0.5	μA
Emitter cutoff current	I_{EB0}	$V_{EB}=-4\text{V}$			-0.5	μA
Collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C=-5\text{mA}$, $I_B=-0.25\text{mA}$			-0.3	V
DC Current Gain	h_{FE}	$V_{CE}=-5\text{V}$, $I_C=-1\text{mA}$	100	250	600	
Input resistance	R_1		3.29	4.7	6.11	k Ω
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_E=5\text{mA}$, $f=100\text{MHz}$ (Note)		250		MHz

Note: Transition frequency of the device

■ TYPICAL CHARACTERISTICS



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