



DTA114T

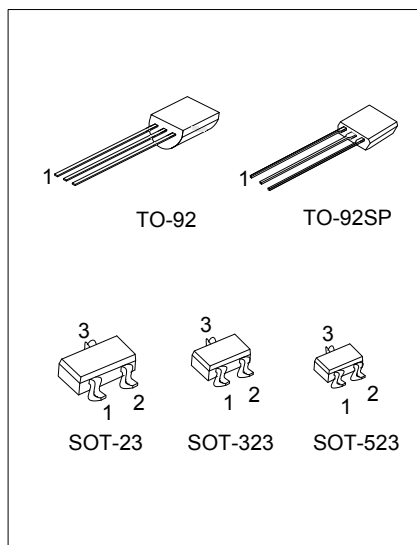
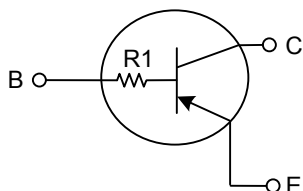
PNP SILICON TRANSISTOR

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

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
DTA114TG-AE3-R	DTA114TG-AE3-R	SOT-23	B	E	C	Tape Reel
DTA114TG-AL3-R	DTA114TG-AL3-R	SOT-323	B	E	C	Tape Reel
DTA114TG-AN3-R	DTA114TG-AN3-R	SOT-523	B	E	C	Tape Reel
DTA114TL-T92-B	DTA114TG-T92-B	TO-92	E	C	B	Tape Box
DTA114TL-T92-K	DTA114TG-T92-K	TO-92	E	C	B	Bulk
DTA114TL-T9S-K	DTA114TG-T9S-K	TO-92SP	E	C	B	Bulk

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

<p>DTA114TG-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel, B: Tape Box, K: Bulk (2) AE3: SOT-23, AL3: SOT-323, AN3: SOT-523, T92: TO-92, T9S: TO-92SP (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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■ MARKING

SOT-23 / SOT-323 / SOT-523	TO-92 / TO-92SP
<p>T: Lead Free I: Halogen Free</p>	<p>UTC DTA114T L: Lead Free C: Halogen Free Date Code</p>

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

PARAMETER		SYMBOL	RATING	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-23	P_C	200	mW
	SOT-323/SOT-523		150	
	TO-92		625	
	TO-92SP		550	
Junction Temperature		T_J	+150	$^\circ\text{C}$
Storage Temperature		T_{STG}	-55 ~ +150	$^\circ\text{C}$

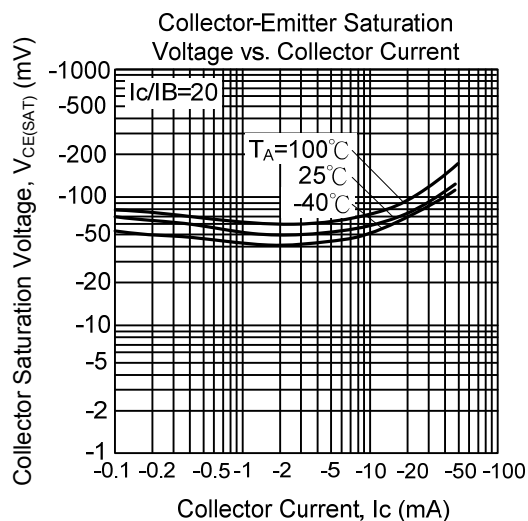
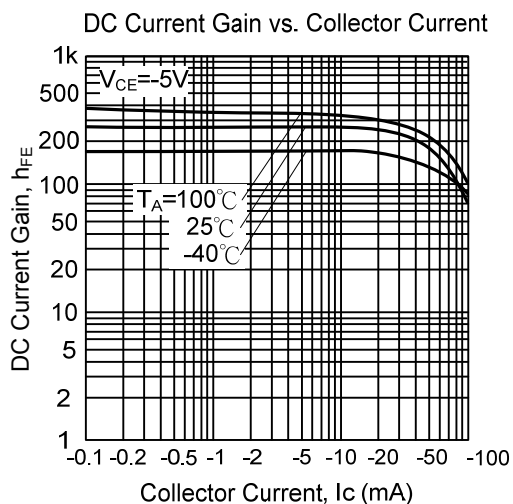
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -50\mu\text{A}$	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1\text{mA}$	-50			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -50\mu\text{A}$	-5			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-0.3	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -50\text{V}$			-0.5	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4\text{V}$			-0.5	μA
ON CHARACTERISTICS						
DC Current Gain	h_{FE}	$V_{CE} = -5\text{V}, I_C = -1\text{mA}$	100	250	600	
SMALL SIGNAL CHARACTERISTICS						
Input Resistance	R_1		7	10	13	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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