



DTC115T

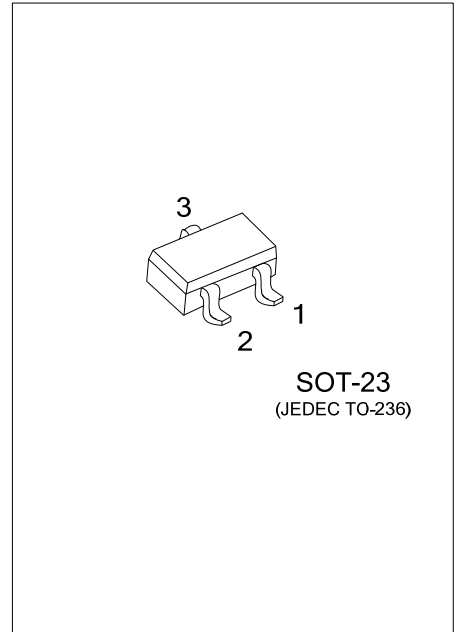
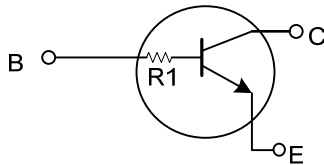
NPN SILICON TRANSISTOR

NPN DIGITAL TRANSISTOR (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 negative input.

EQUIVALENT CIRCUIT



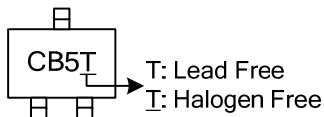
ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
DTC115TL-AE3-6-R	DTC115TL-AE3-6-R	SOT-23	E	B	C	Tape Reel

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

<p>DTC115TL-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) G: Halogen Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-base voltage	V _{CB0}	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	P _C	200	mW
Junction temperature	T _J	150	°C
Storage temperature	T _{STG}	-55 ~ +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 SPECIFICATIONS (T_A=25°C, unless others specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CB0}	I _C =50μA	50			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =1mA	50			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =50μA	5			V
Collector Cutoff Current	I _{CB0}	V _{CB} =50V			0.5	μA
Emitter Cutoff Current	I _{EBO}	V _{EB} =4V			0.5	μA
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C =1mA, I _B =0.1mA			0.3	V
DC Current transfer Ratio	h _{FE}	V _{CE} =5V, I _C =1mA	100	250	600	
Input Resistance	R ₁		70	100	130	KΩ
Transition Frequency	f _T	V _{CE} =10V, I _E =-5mA, f=100MHz		250		MHz

Note: Transition frequency of the device

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