



2SD1782

NPN EPITAXIAL SILICON TRANSISTOR

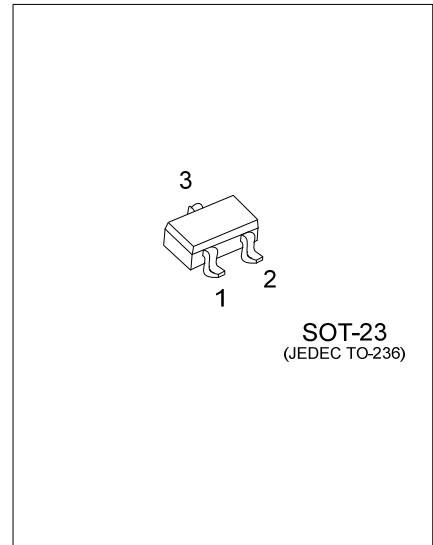
POWER NPN TRANSISTOR

DESCRIPTION

The UTC **2SD1782** is an NPN silicon transistor. it uses UTC's advanced technology to provide customers with high collector-emitter breakdown voltage, low collector-emitter saturation voltage and high DC current gain, etc.

FEATURES

- * High collector-emitter breakdown voltage
- * Low collector-emitter saturation voltage
- * High DC current gain



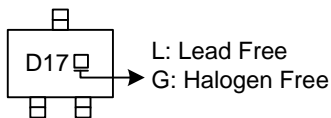
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SD1782L-x-AE3-R	2SD1782G-x-AE3-R	SOT-23	B	E	C	Tape Reel

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

<p>2SD1782G-x-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise stated)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CBO}	80	V
Collector-Emitter Voltage	V _{CEO}	80	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	0.5	A
Collector Power Dissipation	P _C	0.2	W
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.

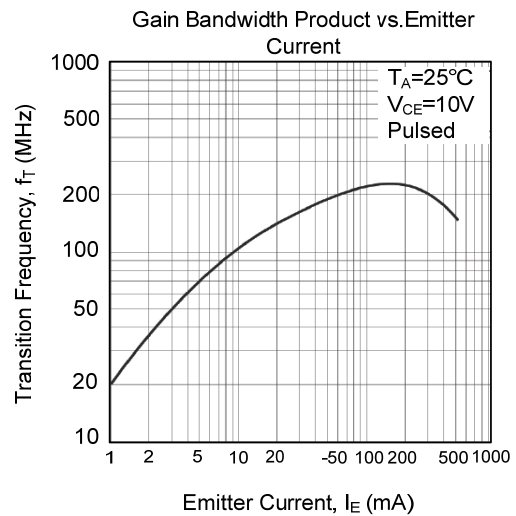
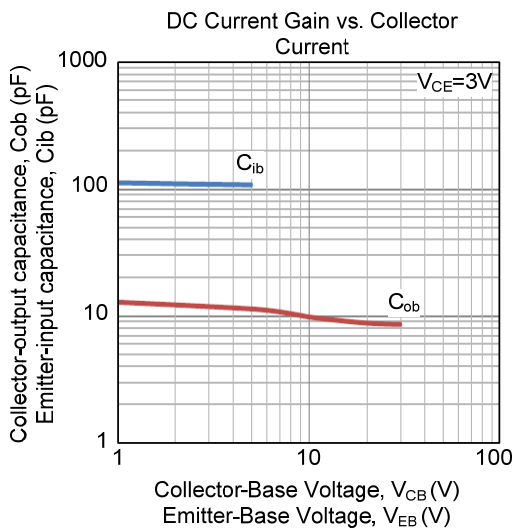
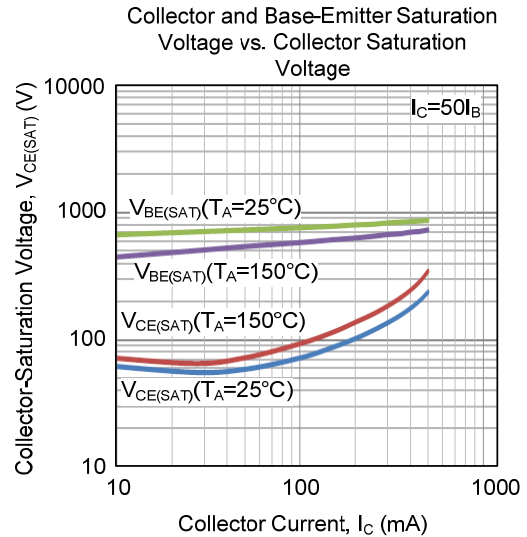
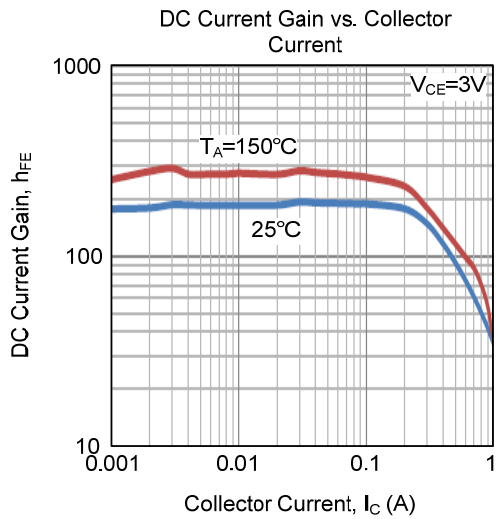
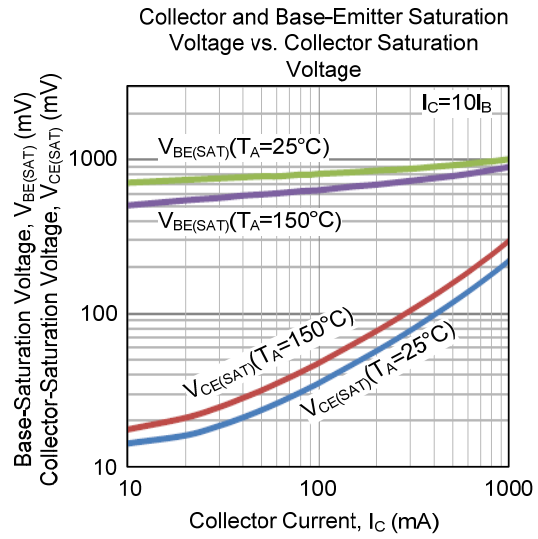
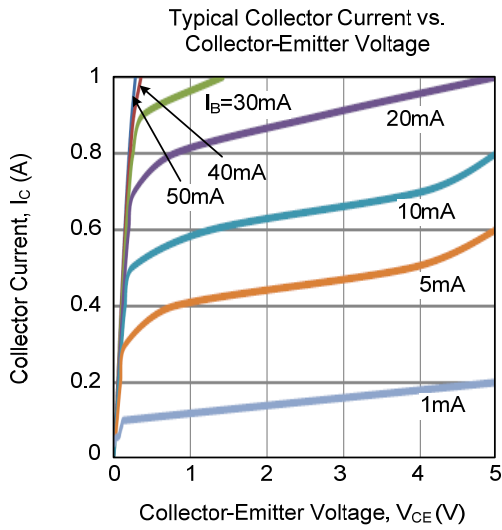
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise stated)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CBO}	I _C =50μA	80			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C =2mA	80			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E =50μA	5			V
Collector Cutoff Current	I _{CBO}	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 =500 mA, I _B =50mA		0.2	0.5	V
DC Current Transfer Ratio	h _{FE}	V _{CE} =3V, I _C =100mA	120		390	
Transition Frequency	f _T	V _{CE} =10V, I _E =-50mA, f=100MHz		120		MHz
Output Capacitance	C _{ob}	V _{CB} =10V, I _E =0A, f=1MHz		7.5		pF

■ CLASSIFICATION OF h_{FE}

RANK	Q	R
RANGE	120~270	180~390

■ TYPICAL CHARACTERISTICS



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