



2SA1013

PNP EPITAXIAL SILICON TRANSISTOR

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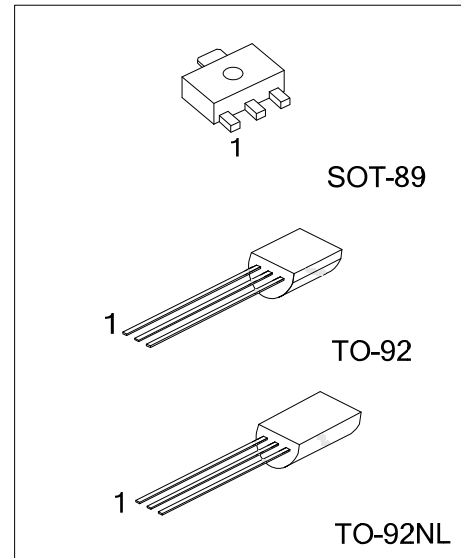
DESCRIPTION

The UTC **2SA1013** is a PNP epitaxial silicon transistor, it uses UTC's advanced technology to provide the customers with high BV_{CEO} and high DC current gain, etc.

The UTC **2SA1013** is suitable for power switching and color TV vertical deflection output, etc.

FEATURES

- * High BV_{CEO}
- * High DC current gain
- * Large continuous collector current capability



ORDERING INFORMATION

Ordering Number		Package	Pin assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1013L-x-AB3-R	2SA1013G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SA1013L-x-T92-B	2SA1013G-x-T92-B	TO-92	B	C	E	Tape Box
2SA1013L-x-T92-K	2SA1013G-x-T92-K	TO-92	B	C	E	Bulk
2SA1013L-x-T9N-B	2SA1013G-x-T9N-B	TO-92NL	B	C	E	Tape Box
2SA1013L-x-T9N-K	2SA1013G-x-T9N-K	TO-92NL	B	C	E	Bulk

<p>2SA1013L-x-AB3-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Rank</p> <p>(4) Lead Free</p>	<p>(1) R: Tape Reel, B: Tape Box</p> <p>(2) AB3: SOT-89, T92: TO-92, T9N: TO-92NL</p> <p>(3) refer to Classification of h_{FE}</p> <p>(4) L: Lead Free, G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V _{CBO}	-160	V
Collector-Emitter Voltage		V _{CEO}	-160	V
Emitter-Base Voltage		V _{EBO}	-6	V
Collector Current		I _C	-1	A
Base Current		I _B	-0.5	A
Collector Power Dissipation	SOT-89	P _C	500	W
	TO-92/TO-92NL		900	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.

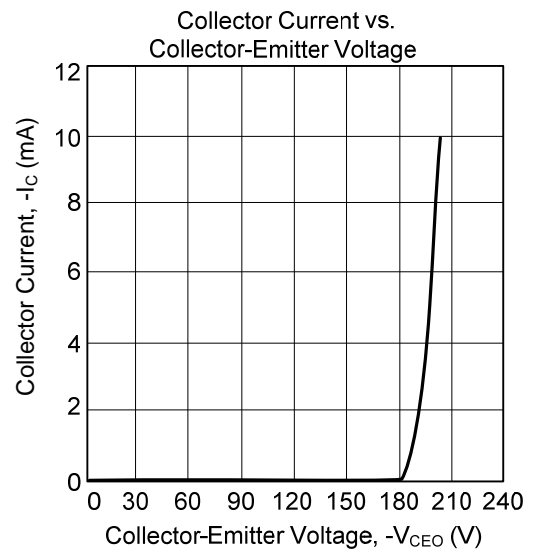
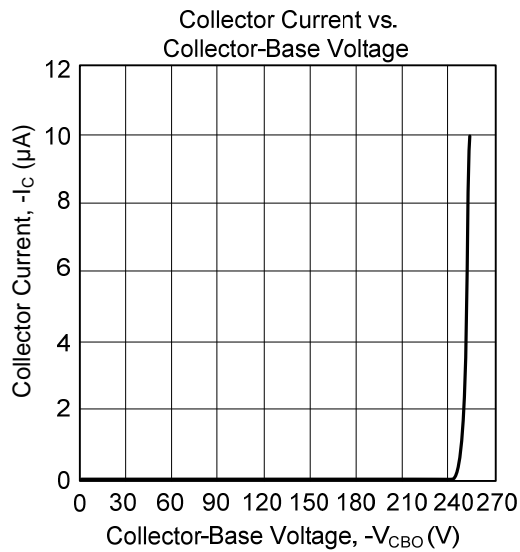
■ ELECTRICAL CHARACTERISTICS (T_A=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I _{CBO}	V _{CB} =-150V, I _E =0			-1.0	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =-6V, I _C =0			-1.0	μA
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =-10mA, I _B =0	-160			V
DC Current Gain	h _{FE}	V _{CE} =-5V, I _C =-200mA	60		320	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-500mA, I _B =-50mA			-1.5	V
Base-Emitter Voltage	V _{BE}	V _{CE} =-5V, I _C =-5mA	-0.45		-0.75	V
Transition Frequency	f _T	V _{CE} =-5V, I _C =-200mA	15	50		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =-10V, f=1MHz, I _E =0			35	pF

■ CLASSIFICATION OF h_{FE}

RANK	R	O	P
RANGE	60~120	100~200	160~320

■ TYPICAL CHARACTERISTICS



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