

# UTC2SA1201 PNP EPITAXIAL SILICON TRANSISTOR

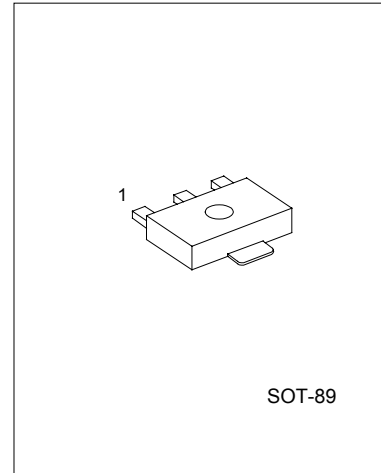
## SILICON PNP EPITAXIAL TRANSISTOR

### DESCRIPTION

The UTC 2SA1201 is designed for power amplifier and voltage amplifier applications.

### FEATURES

- \*High voltage:  $V_{CE0} = -120V$
- \*High transition frequency:  $f_T = 120MHz$ (typ.)
- \* $P_c = 1$  to 2 W(mounted on ceramic substrate)



SOT-89

1:EMITTER 2:COLLECTOR 3:BASE

### ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CB0}$	-120	V
Collector-Emitter Voltage	$V_{CE0}$	-120	V
Emitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current	$I_c$	-800	mA
Base Current	$I_b$	-160	mA
Collector Power Dissipation	$P_c$	500	mW
	$P_c^*$	1000	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{STG}$	-55 ~ +150	°C

\* : Mounted on ceramic substrate(  $250mm^2 \times 0.8t$  )

### ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

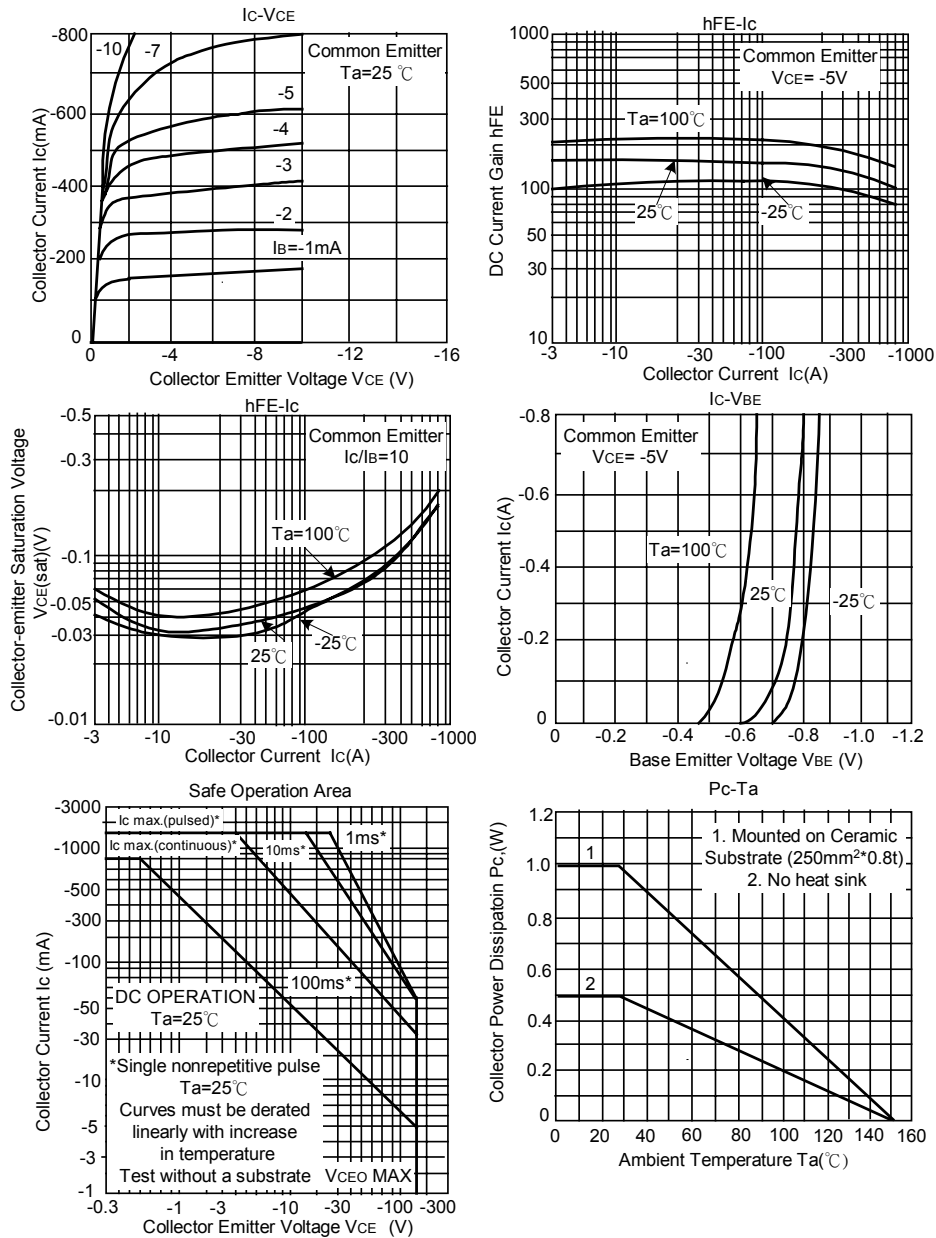
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_c = -10mA, I_b = 0$	-120			V
Emitter to Base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1mA, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -120V, I_E = 0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-0.1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE} = -5V, I_C = -100mA$	80		240	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_c = -500mA, I_b = -50mA$			-1.0	V
Base to emitter voltage	$V_{BE}$	$V_{CE} = -5V, I_C = -100mA$			-1.0	V
Transition frequency	$f_T$	$V_{CE} = -5V, I_C = -100mA$		120		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$			30	pF

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## CLASSIFICATION OF hFE

RANK	O	Y
RANGE	80 - 160	120 - 240

## TYPICAL PERFORMANCE CHARACTERISTICS



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