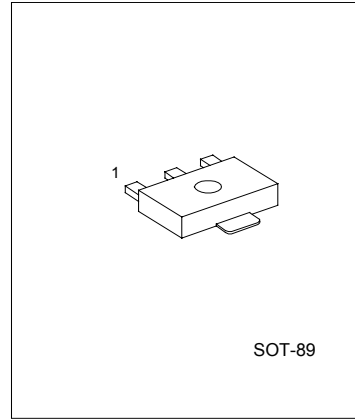


# UTC 2SC2881 NPN EPITAXIAL SILICON TRANSISTOR

VOLTAGE AMPLIFIER  
APPLICATIONS POWER  
AMPLIFIER APPLICATIONS

## FEATURES

- \* High voltage:  $V_{CE0} = 120V$
- \* High transition frequency:  $f_T = 120MHz$ (typ.)
- \*  $P_c = 1.0 \sim 2.0 W$ (mounted on ceramic substrate)
- \* Complementary to 2SA1201



SOT-89

1:EMITTER 2:COLLECTOR 3:BASE

## ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-base voltage	$V_{CBO}$	120	V
Collector-emitter voltage	$V_{CEO}$	120	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	800	mA
Base current	$I_B$	160	mA
Collector power dissipation	$P_c$	500	mW
	$P_c$ (Note 1)	1000	
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature range	$T_{stg}$	-55 ~ 150	$^\circ C$

Note 1: Mounted on ceramic substrate(  $250mm^2 \times 0.8t$  )

## ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	120			V
Emitter-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-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.0	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = 5V, I_C = 500mA$			1.0	V
Transition frequency	$f_T$	$V_{CE} = 5V, I_C = 100mA$		120		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10V, f = 1MHz, I_E = 0$			30	pF

## CLASSIFICATION OF $h_{FE}$

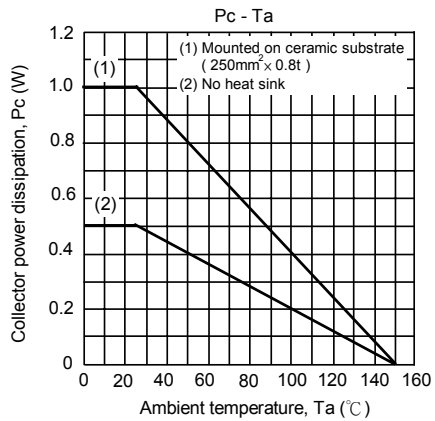
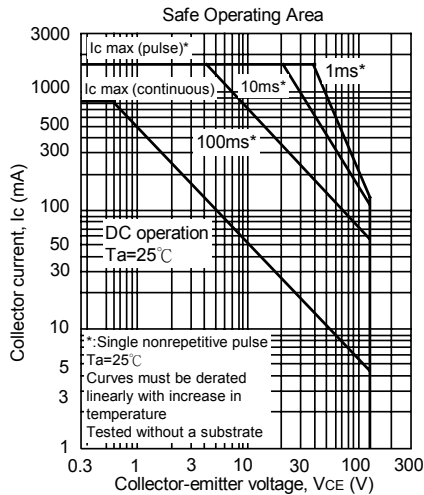
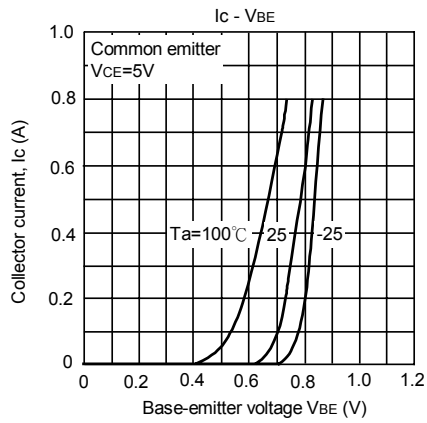
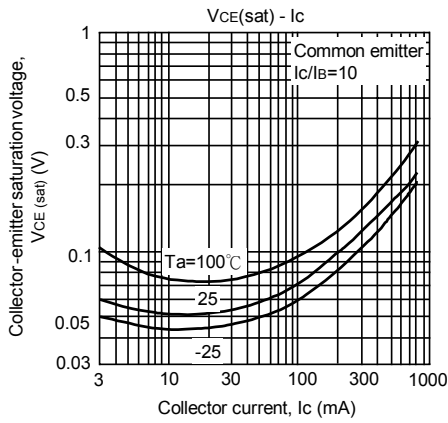
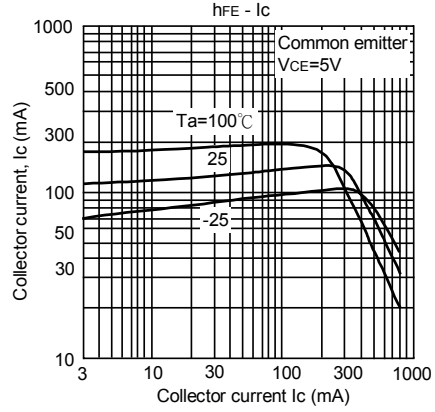
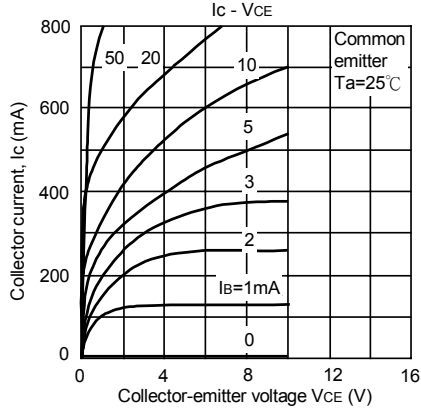
RANK	O	Y
RANGE	80 - 160	120 - 240

UTC UNISONIC TECHNOLOGIES CO., LTD. 1

QW-R208-032,A

# UTC 2SC2881 NPN EPITAXIAL SILICON TRANSISTOR

## TYPICAL PERFORMANCE CHARACTERISTICS



# UTC 2SC2881 NPN EPITAXIAL SILICON TRANSISTOR

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