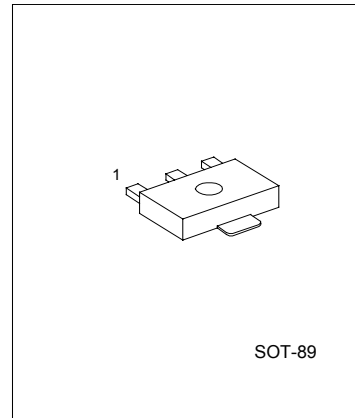


UTC 2SC2881 NPN EPITAXIAL SILICON TRANSISTOR

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	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			0.1	μA
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}

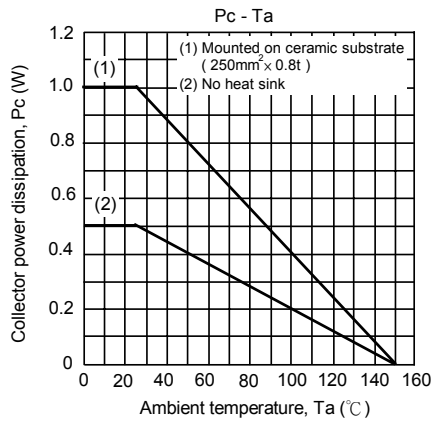
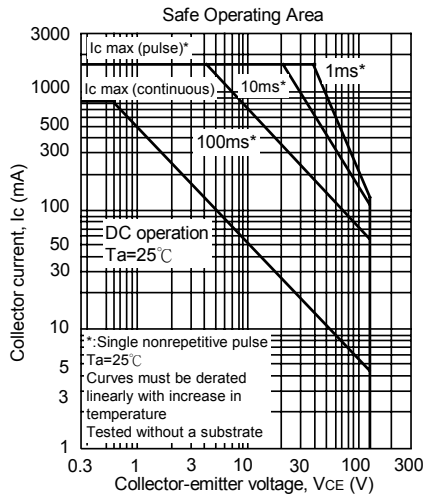
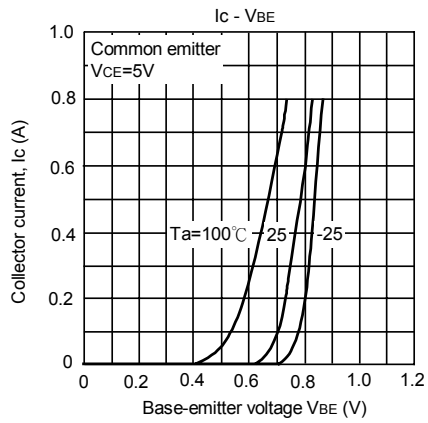
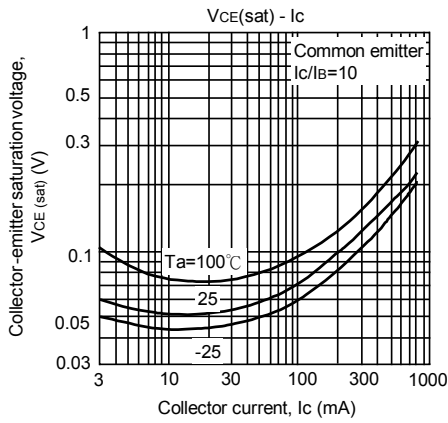
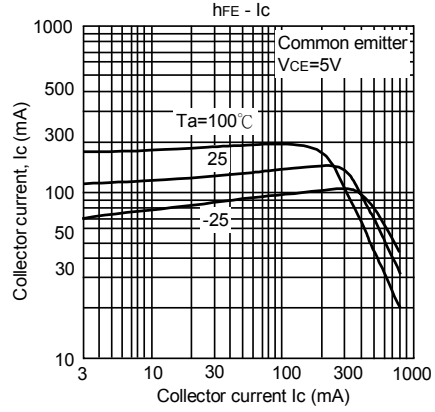
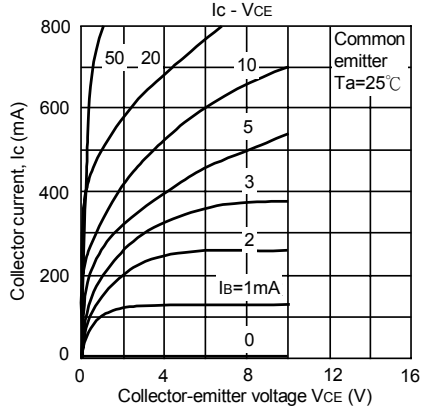
RANK	O	Y
RANGE	80 - 160	120 - 240

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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