



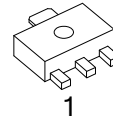
2SC2881

NPN SILICON TRANSISTOR

VOLTAGE AMPLIFIER APPLICATIONS POWER AMPLIFIER APPLICATIONS

■ FEATURES

- * High voltage: $V_{CE0}=120V$
- * High transition frequency: $f_T=120MHz(typ.)$
- * Complementary to 2SA1201

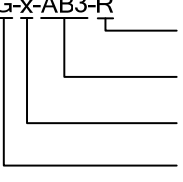


SOT-89

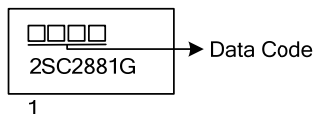
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
2SC2881G-x-AB3-R	SOT-89	B	C	E	Tape Reel

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

2SC2881G-x-AB3-R  (1) Packing Type (2) Package Type (3) Rank (4) Green Package	(1) R: Tape Reel (2) AB3: SOT-89 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free
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■ MARKING



■ **ABSOLUTE MAXIMUM RATINGS** ($T_A = 25^\circ\text{C}$, unless otherwise specified)

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
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 ~ 150	$^\circ\text{C}$

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** ($T_A = 25^\circ\text{C}$, unless otherwise specified)

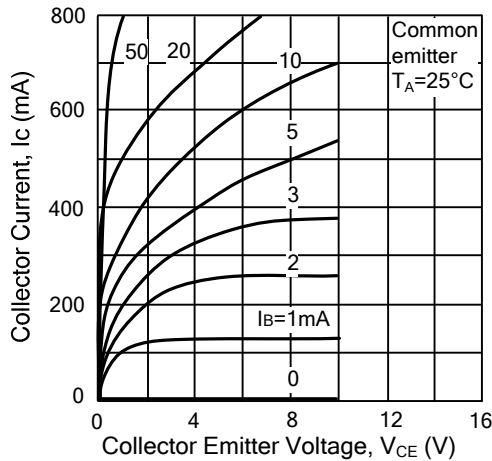
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}$, $I_B = 0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 1\text{mA}$, $I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 120\text{V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}$, $I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 5\text{V}$, $I_C = 100\text{mA}$	80		240	
Collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C = 500\text{mA}$, $I_B = 50\text{mA}$			1.0	V
Base-emitter voltage	V_{BE}	$V_{CE} = 5\text{V}$, $I_C = 500\text{mA}$			1.0	V
Transition frequency	f_T	$V_{CE} = 5\text{V}$, $I_C = 100\text{mA}$		120		MHz
Collector output capacitance	C_{OB}	$V_{CB} = 10\text{V}$, $f = 1\text{MHz}$, $I_E = 0$			30	pF

■ **CLASSIFICATION OF h_{FE}**

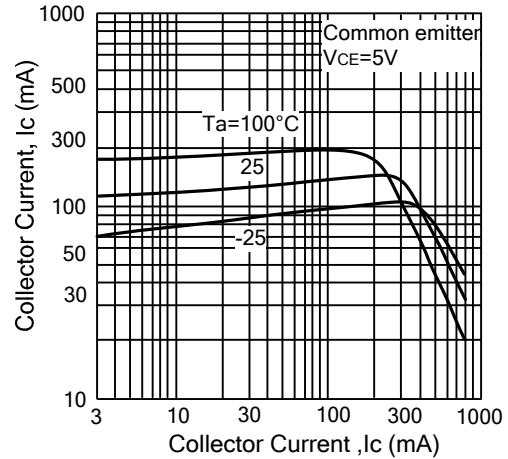
RANK	O	Y
RANGE	80 - 160	120 - 240

TYPICAL PERFORMANCE CHARACTERISTICS

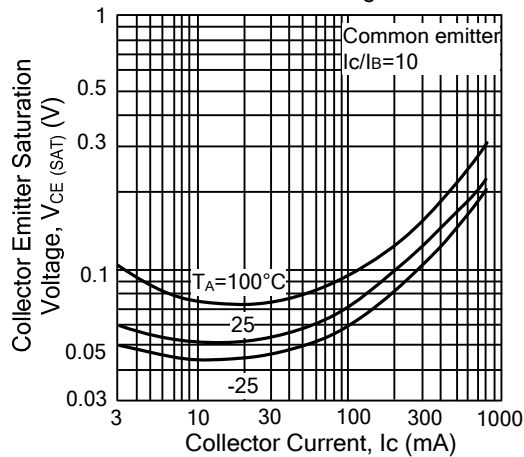
Collector Current vs. Collector Emitter Voltage



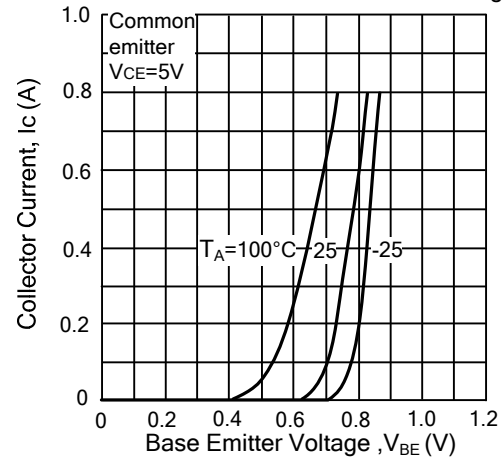
Collector Current vs. Collector Current



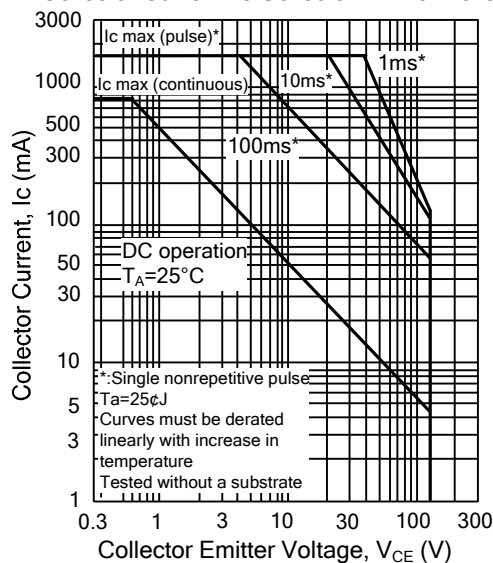
Collector Emitter Saturation Voltage vs. Collector Current



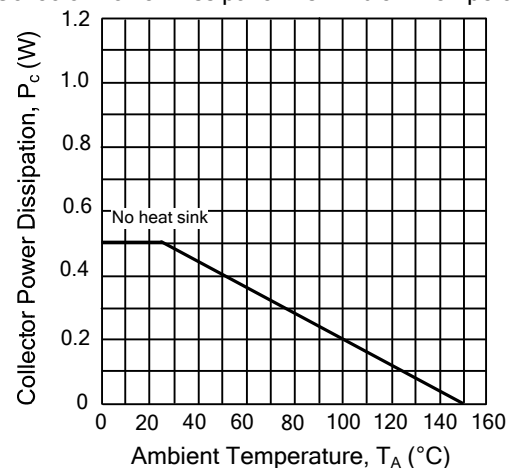
Collector Current vs. Base Emitter Voltage



Collector Current vs. Collector Emitter Voltage



Collector Power Dissipation vs. Ambient Temperature



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