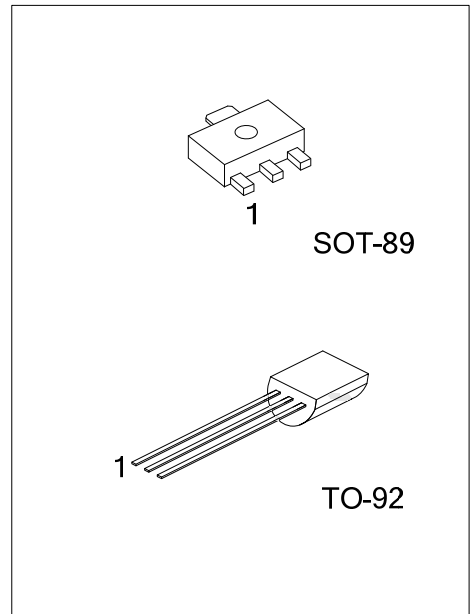




2SC2881

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

ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
-	2SC2881G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SC2881L-x-T92-B	2SC2881G-x-T92-B	TO-92	B	C	E	Tape Box
2SC2881L-x-T92-K	2SC2881G-x-T92-K	TO-92	B	C	E	Bulk

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

<p>2SC2881G-x-AB3-R</p>	<p>(1) R: Tape Reel, B: Tape Box, K: Bulk</p> <p>(2) AB3: SOT-89, T92: TO-92</p> <p>(3) x: refer to Classification of h_{FE}</p> <p>(4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING

SOT-89	TO-92

■ 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	SOT-89	P_C	500	mW
	TO-92		600	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)

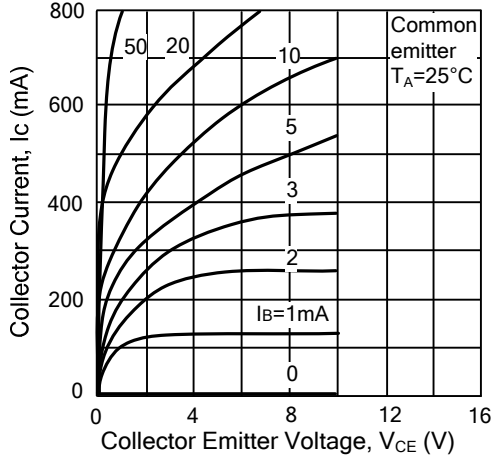
PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}$, $I_B=0$	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=120\text{V}$, $I_E=0$			0.1	μA
Emitter cut-off current	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}

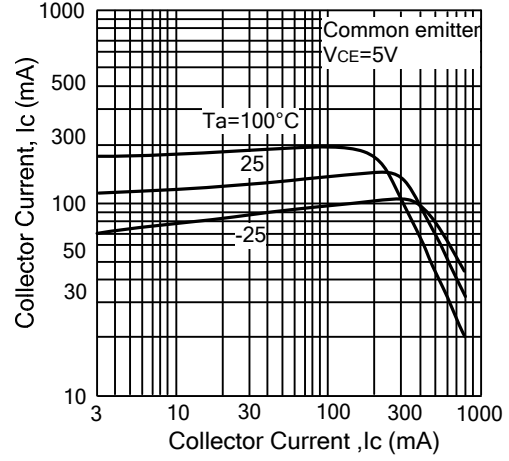
RANK	O	Y
RANGE	80 - 160	120 - 240

TYPICAL PERFORMANCE CHARACTERISTICS

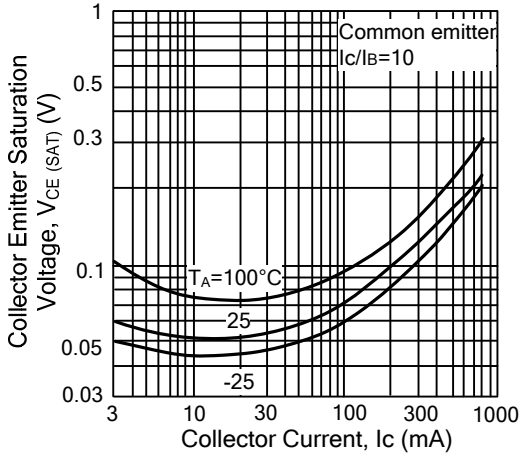
Collector Current vs. Collector Emitter Voltage



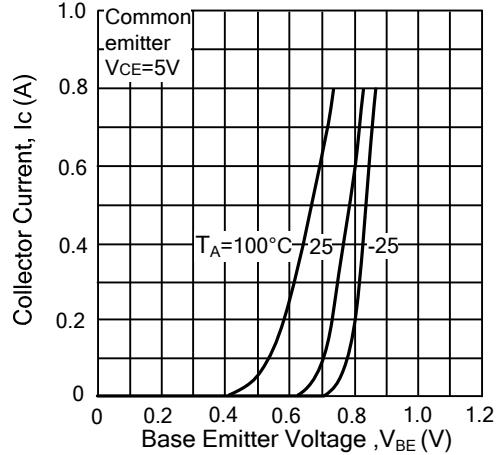
Collector Current vs. Collector Current



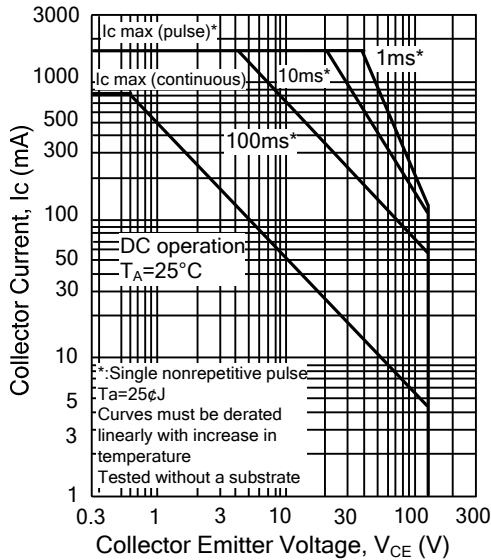
Collector Emitter Saturation Voltage vs. Collector Current



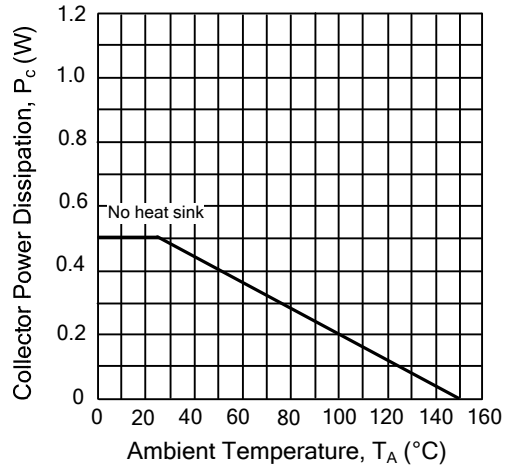
Collector Current vs. Base Emitter Voltage



Collector Current vs. Collector Emitter Voltage



Collector Power Dissipation vs. Ambient Temperature



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