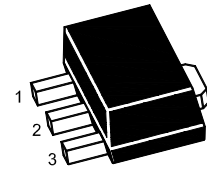


# 2SC2881U

## NPN Silicon Epitaxial Planar Transistor

Power amplifier



1.Base 2.Collector 3.Emitter  
SOT-89 Plastic Package

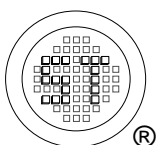
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	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	$P_C$	0.5 1 <sup>1)</sup>	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

<sup>1)</sup> Mounted on ceramic board (250 mm<sup>2</sup> x 0.8 mm).

### Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 5\text{ V}$ , $I_C = 100\text{ mA}$	Current Gain Group O	$h_{FE}$	80	-	160	-
	Y	$h_{FE}$	120	-	240	-
Collector Base Cutoff Current at $V_{CB} = 120\text{ V}$	$I_{CBO}$	-	-	100	nA	
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	$I_{EBO}$	-	-	100	nA	
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	120	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 1\text{ mA}$	$V_{(BR)EBO}$	5	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 500\text{ mA}$ , $I_B = 50\text{ mA}$	$V_{CE(sat)}$	-	-	1	V	
Base Emitter on Voltage at $V_{CE} = 5\text{ V}$ , $I_C = 500\text{ mA}$	$V_{BE(on)}$	-	-	1	V	
Transition Frequency at $V_{CE} = 5\text{ V}$ , $I_C = 100\text{ mA}$	$f_T$	-	120	-	MHz	
Collector Output Capacitance at $V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	-	30	pF	

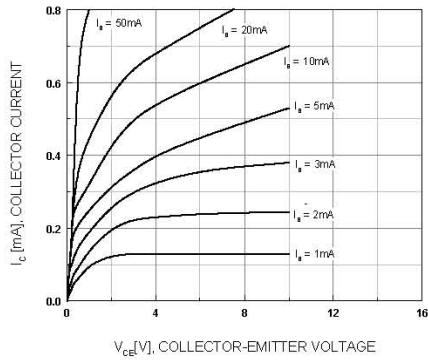


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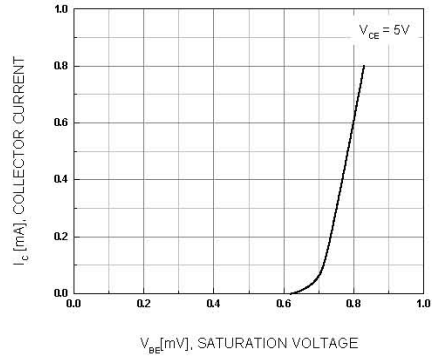


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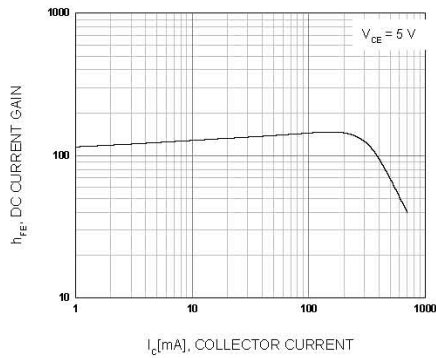
**Figure 1. Static Characteristic**



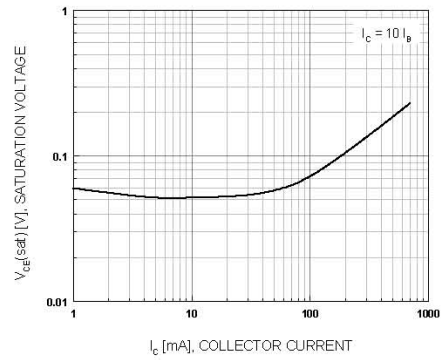
**Figure 2. Base-Emitter On Voltage**



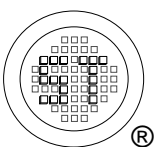
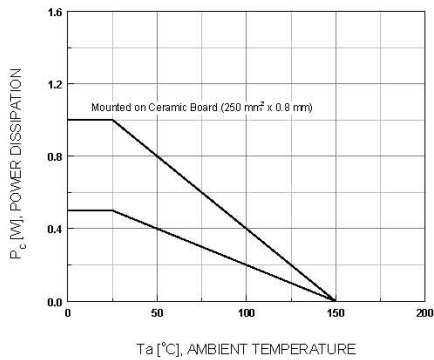
**Figure 3. DC Current Gain**



**Figure 4. Collector-Emitter Saturation Voltage**



**Figure 5. Power Derating**

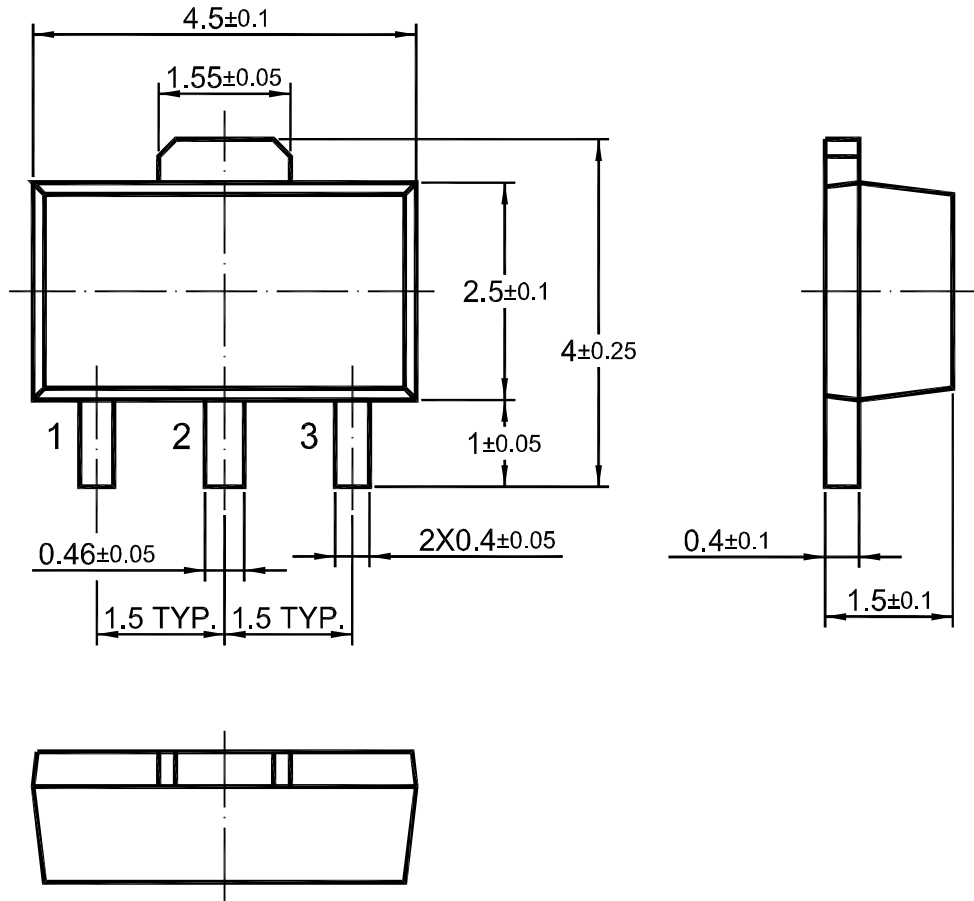


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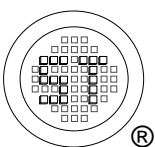


# 2SC2881U

## SOT-89 PACKAGE OUTLINE



Dimensions in mm



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