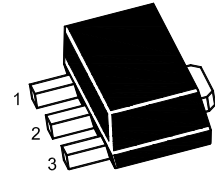


2SA1661U

PNP Silicon Epitaxial Planar Transistor

for high current application



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

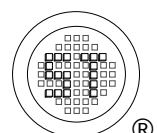
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

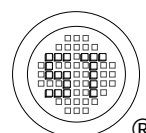
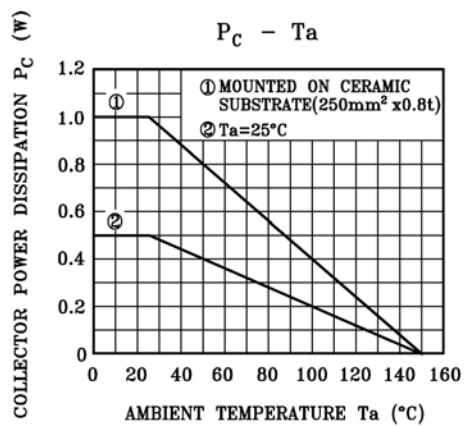
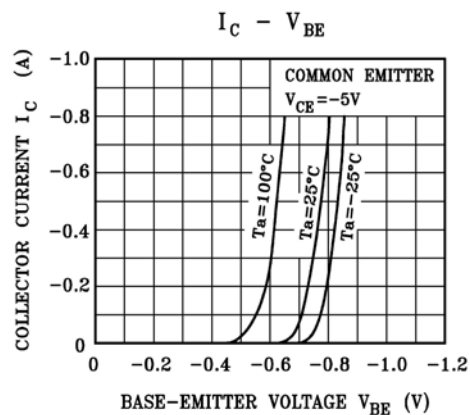
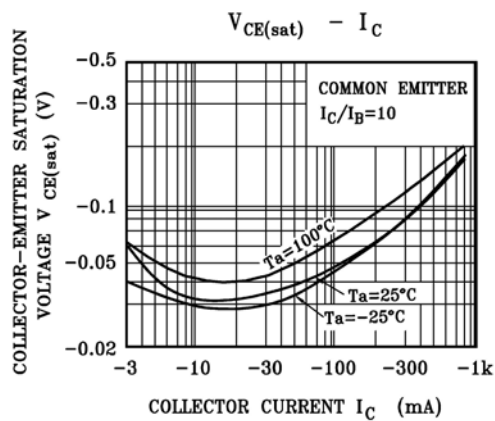
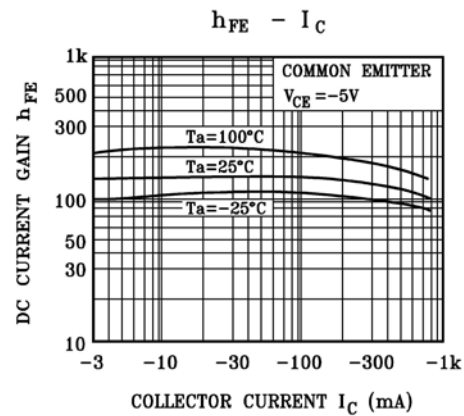
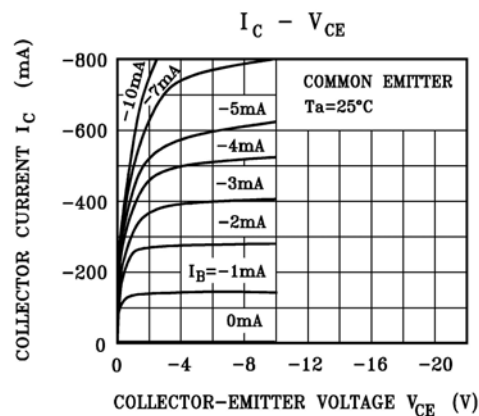
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	120	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	120	V
Emitter Base Voltage	$-V_{\text{EBO}}$	5	V
Collector Current	$-I_{\text{C}}$	800	mA
Base Current	$-I_{\text{B}}$	160	mA
Total Power Dissipation	P_{tot}	0.5 1 ¹⁾	W
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ When mounted on a 250 mm² x 0.8 t ceramic substrate.

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

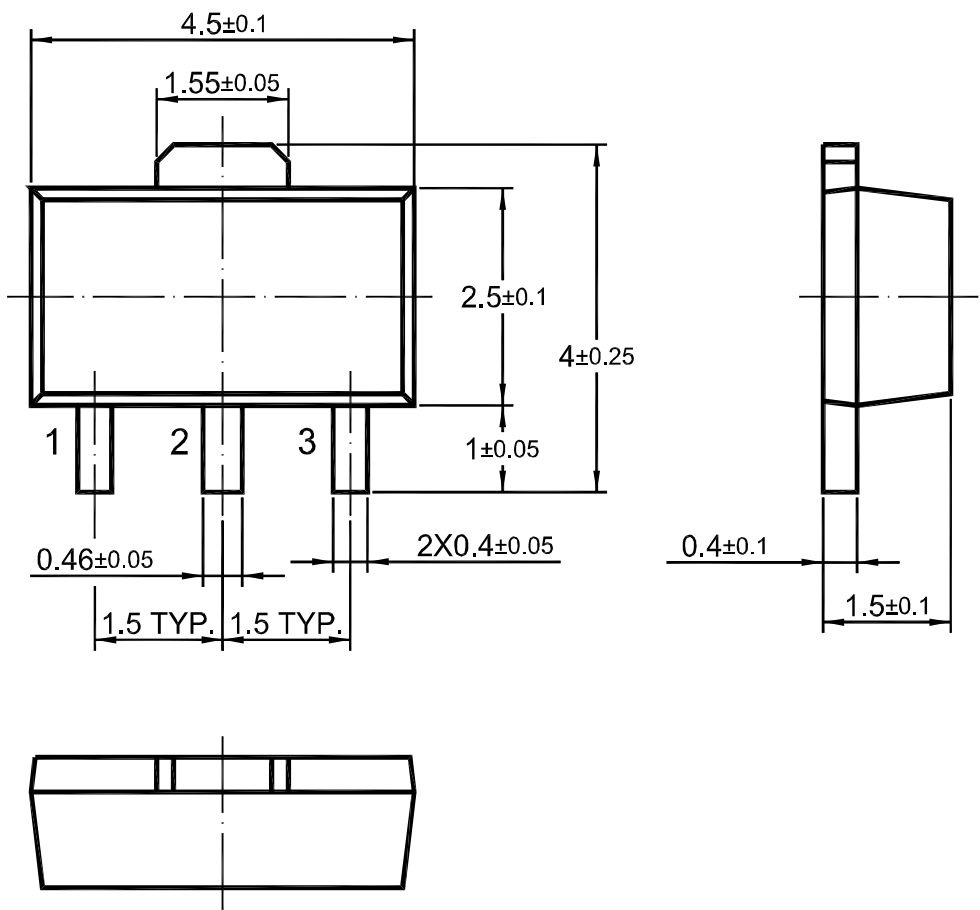
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{\text{CE}} = 5 \text{ V}$, $-I_{\text{C}} = 100 \text{ mA}$ Current Gain Group O Y	h_{FE}	80	-	160	-
	h_{FE}	120	-	240	-
Collector Base Cutoff Current at $-V_{\text{CB}} = 120 \text{ V}$	$-I_{\text{CBO}}$	-	-	100	nA
Emitter Base Cutoff Current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





2SA1661U

SOT-89 PACKAGE OUTLINE



Dimensions in mm

