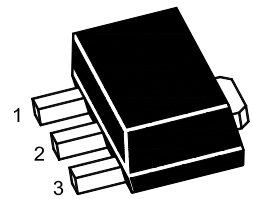


2SA1668U

PNP Silicon Epitaxial Planar Transistor

Features

- High Voltage
- High Current
- High Transition Frequency
- Wide Area of Safe Operation.



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

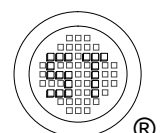
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	80	V
Collector Emitter Voltage	$-V_{CEO}$	60	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	1	A
Peak Collector Current, Pulsed	$-I_{CM}$	2	A
Power Dissipation	P_D	0.5 1 ¹⁾	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

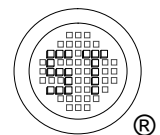
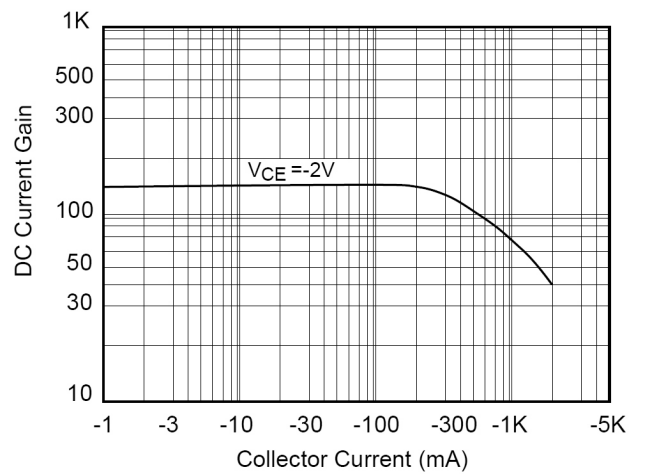
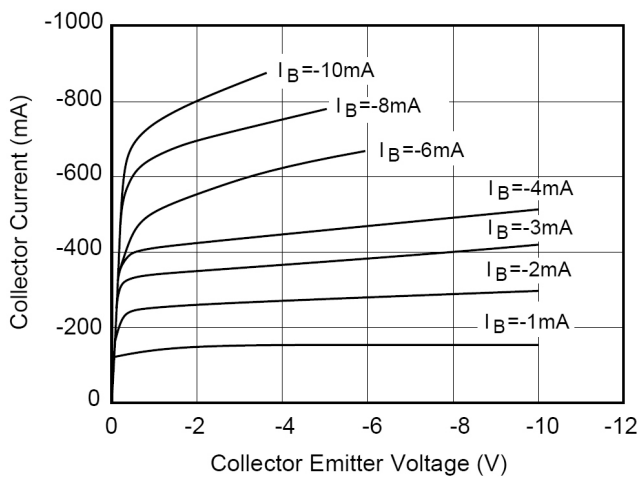
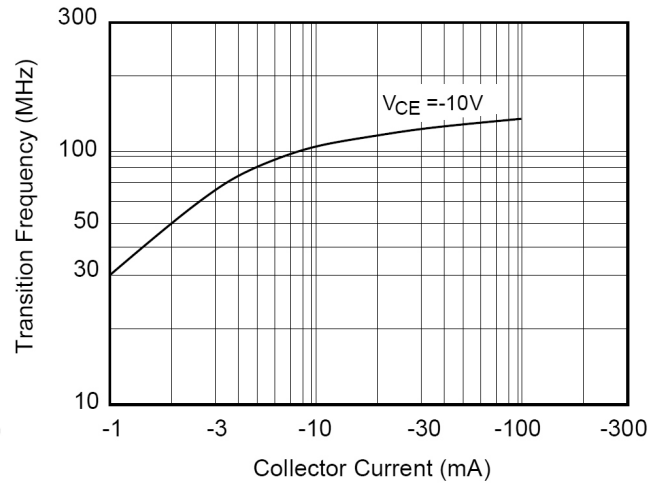
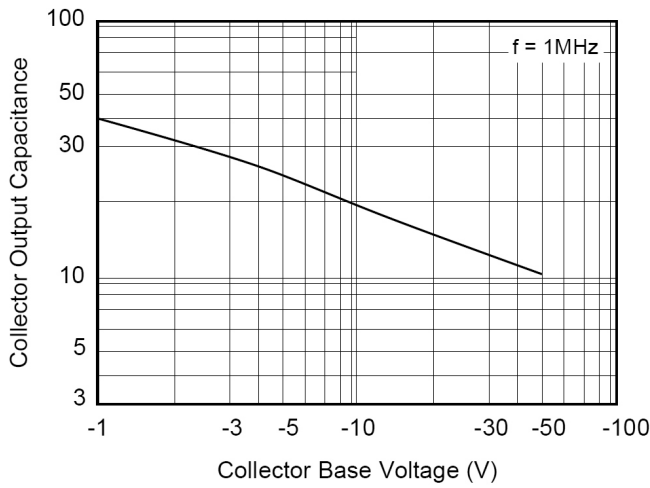
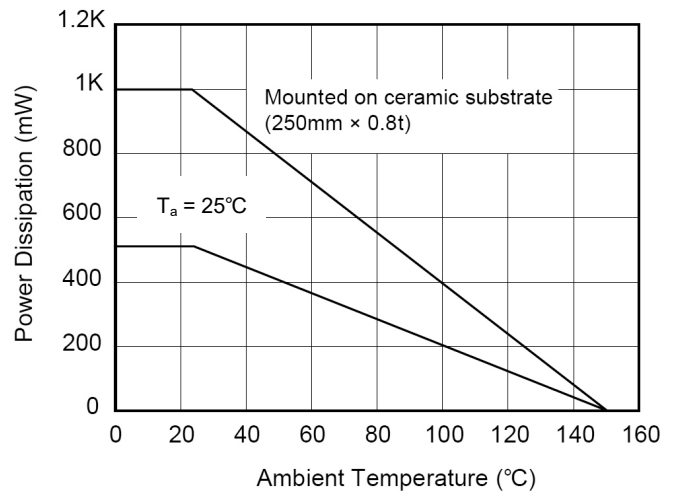
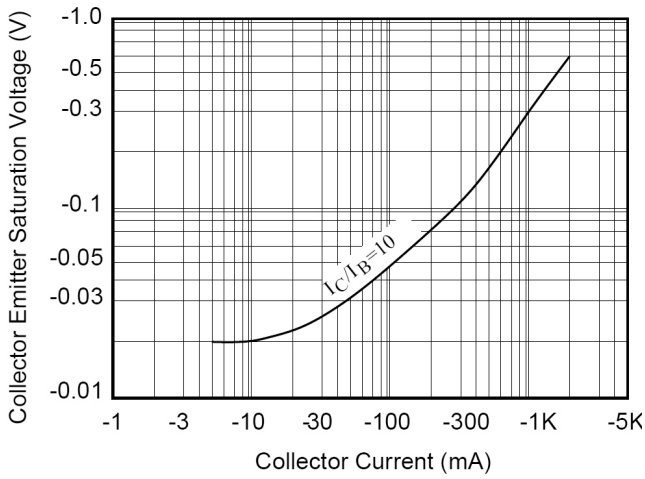
¹⁾ Package mounted on ceramic substrate (250 mm² x 0.8t).

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 2\text{ V}$, $-I_C = 50\text{ mA}$ at $-V_{CE} = 2\text{ V}$, $-I_C = 1\text{ A}$	Current Gain Group O	h_{FE}	60	-	120	-
	Y	h_{FE}	100	-	200	-
		h_{FE}	30	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$	$-I_{CBO}$	-	-	100	nA	
Emitter Base Cutoff Current at $-V_{EB} = 4\text{ V}$	$-I_{EBO}$	-	-	100	nA	
Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$	$-V_{(BR)CEO}$	60	-	-	V	
Collector Emitter Saturation Voltage at $-I_C = 500\text{ mA}$, $-I_B = 50\text{ mA}$	$-V_{CE(sat)}$	-	-	0.7	V	
Base Emitter Saturation Voltage at $-I_C = 500\text{ mA}$, $-I_B = 50\text{ mA}$	$-V_{BE(sat)}$	-	-	1.2	V	
Transition Frequency at $-V_{CE} = 10\text{ V}$, $-I_C = 50\text{ mA}$	f_T	-	150	-	MHz	
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	12	-	pF	



2SA1668U



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Package Outline(Dimensions in mm)

SOT-89

