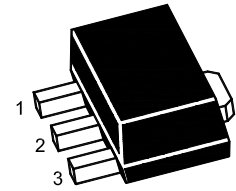


2N5551U

NPN Silicon Epitaxial Planar Transistors

for general purpose, high voltage amplifier applications.



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}	180	V
Collector Emitter Voltage	V_{CEO}	160	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_{C}	600	mA
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{\text{CE}} = 5 \text{ V}$, $I_{\text{C}} = 1 \text{ mA}$	h_{FE}	80	-	-
at $V_{\text{CE}} = 5 \text{ V}$, $I_{\text{C}} = 10 \text{ mA}$	h_{FE}	80	250	-
at $V_{\text{CE}} = 5 \text{ V}$, $I_{\text{C}} = 50 \text{ mA}$	h_{FE}	30	-	-
Collector Base Cutoff Current at $V_{\text{CB}} = 120 \text{ V}$	I_{CBO}	-	50	nA
Emitter Base Cutoff Current at $V_{\text{EB}} = 4 \text{ V}$	I_{EBO}	-	50	nA
Collector Base Breakdown Voltage at $I_{\text{C}} = 100 \mu\text{A}$	$V_{(\text{BR})\text{CBO}}$	180	-	V
Collector Emitter Breakdown Voltage at $I_{\text{C}} = 1 \text{ mA}$	$V_{(\text{BR})\text{CEO}}$	160	-	V
Emitter Base Breakdown Voltage at $I_{\text{E}} = 10 \mu\text{A}$	$V_{(\text{BR})\text{EBO}}$	6	-	V
Collector Emitter Saturation Voltage at $I_{\text{C}} = 10 \text{ mA}$, $I_{\text{B}} = 1 \text{ mA}$	$V_{\text{CE(sat)}}$	-	0.15	V
at $I_{\text{C}} = 50 \text{ mA}$, $I_{\text{B}} = 5 \text{ mA}$		-	0.2	
Base Emitter Saturation Voltage at $I_{\text{C}} = 10 \text{ mA}$, $I_{\text{B}} = 1 \text{ mA}$	$V_{\text{BE(sat)}}$	-	1	V
at $I_{\text{C}} = 50 \text{ mA}$, $I_{\text{B}} = 5 \text{ mA}$		-	1	
Gain Bandwidth Product at $V_{\text{CE}} = 10 \text{ V}$, $I_{\text{C}} = 10 \text{ mA}$, $f = 100 \text{ MHz}$	f_{T}	100	300	MHz
Collector Output Capacitance at $V_{\text{CB}} = 10 \text{ V}$, $f = 1 \text{ MHz}$	C_{ob}	-	6	pF

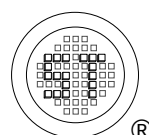


Fig.1 $P_{tot} - T_a$

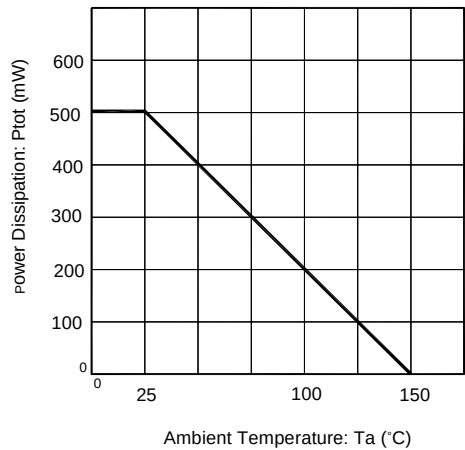


Fig. 2 $I_C - V_{BE}$

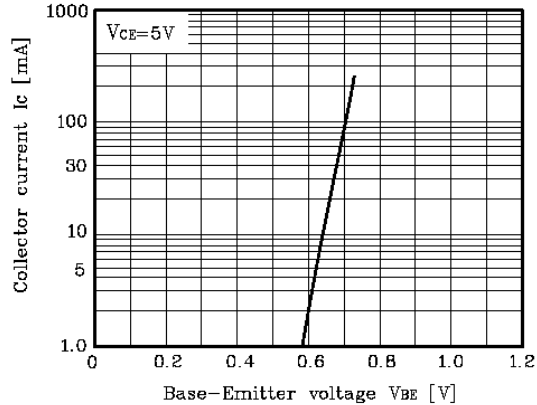


Fig. 3 $f_T - I_C$

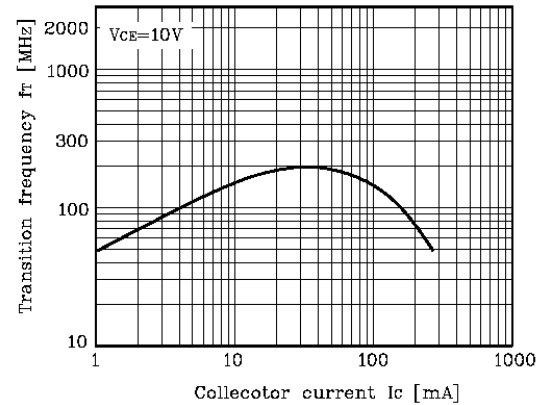


Fig. 4 $V_{CE(sat)}, V_{BE(sat)} - I_C$

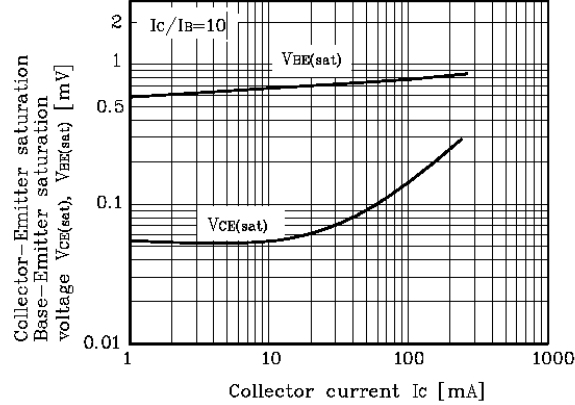
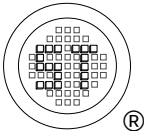
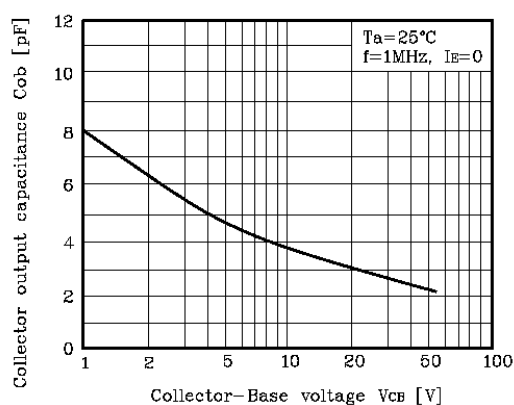
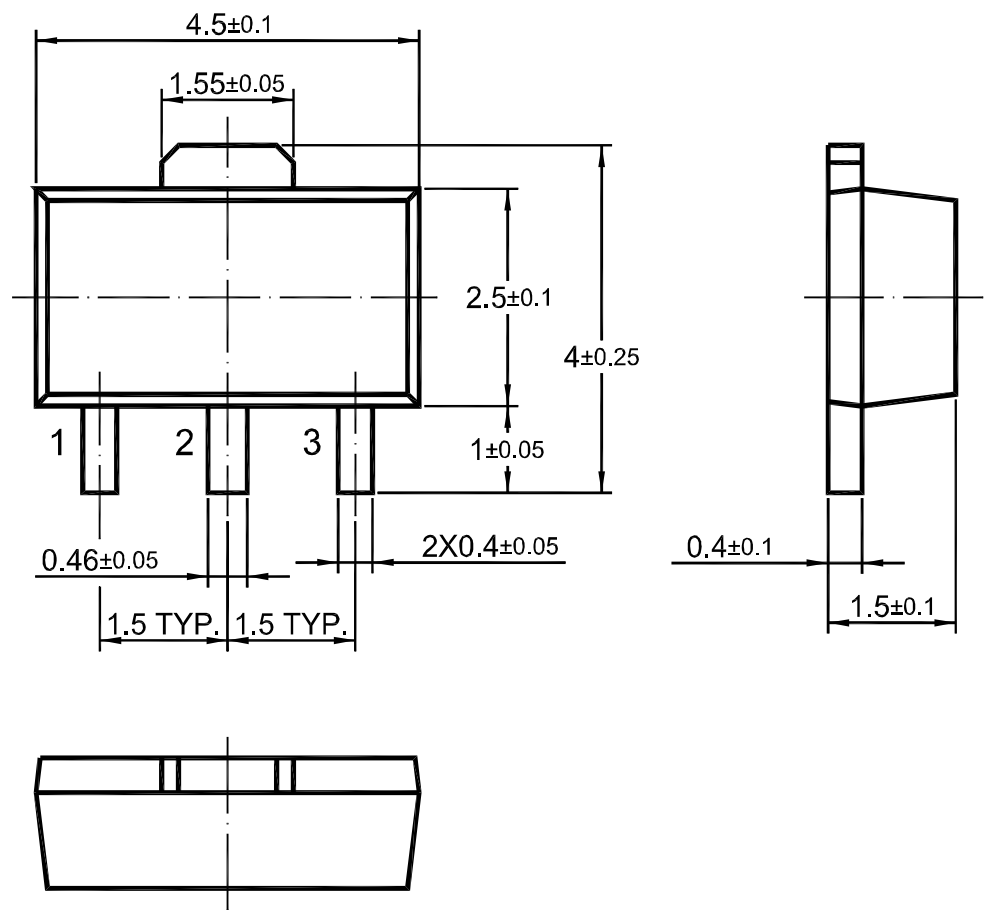


Fig. 5 $C_{ob} - V_{CB}$



2N5551U

SOT-89 PACKAGE OUTLINE



Dimensions in mm

