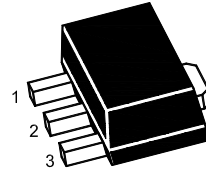


NPN Silicon Epitaxial Planar Transistor

For low frequency power amplification

The transistor is subdivided into two groups, Q and R, according to its DC current gain.



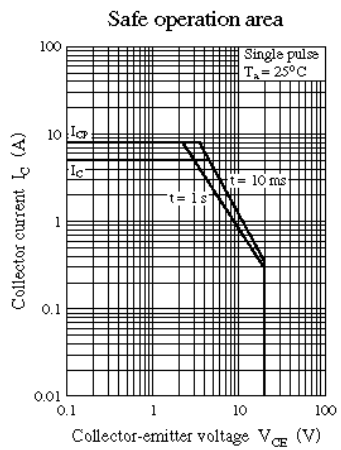
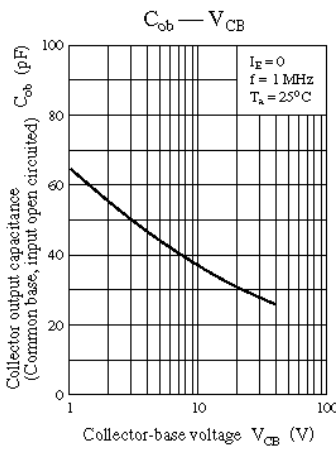
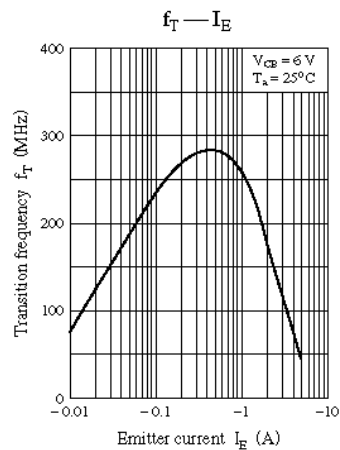
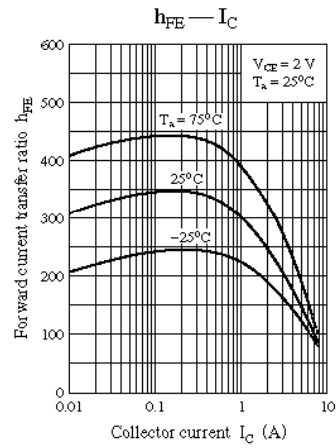
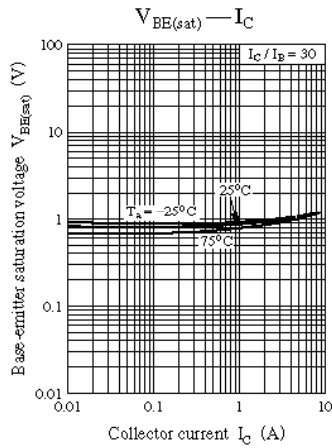
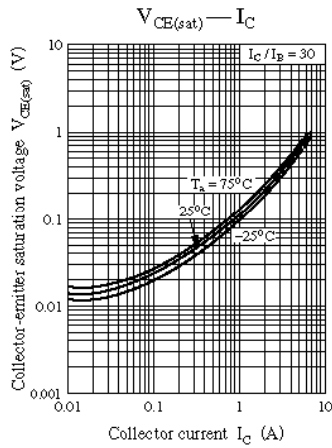
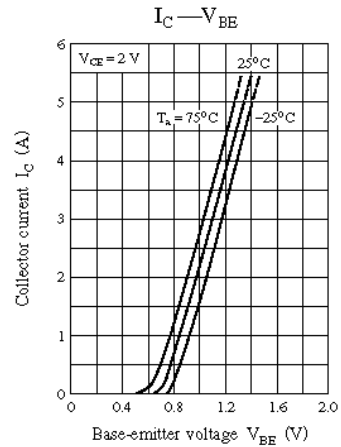
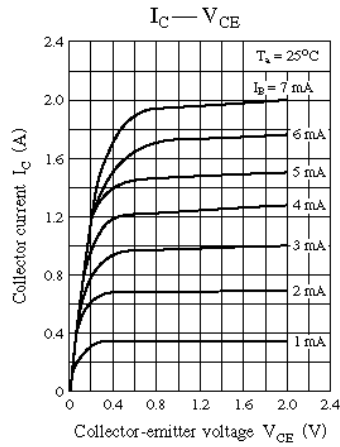
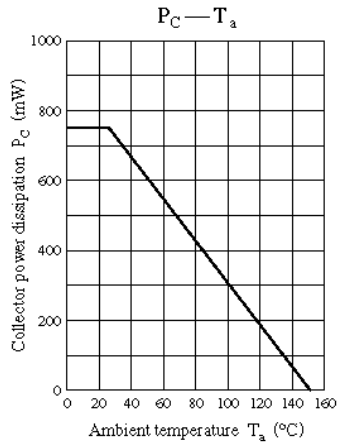
1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector to Base Voltage	V _{CBO}	40	V
Collector to Emitter Voltage	V _{CEO}	20	V
Emitter to Base Voltage	V _{EBO}	7	V
Collector Current	I _C	5	A
Peak Collector Current	I _{CP}	8	A
Total power dissipation	P _{tot}	0.75	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{Stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V _{CE} = 2 V, I _C = 0.5 A Current Gain Group at V _{CE} = 2 V, I _C = 2 A	Q h _{FE}	230	-	380	-
	R h _{FE}	340	-	600	-
	h _{FE}	150	-	-	-
Collector Emitter Breakdown Voltage at I _C = 1 mA	V _{CEO}	20	-	-	V
Emitter Base Breakdown Voltage at I _E = 10 μA	V _{EBO}	7	-	-	V
Collector Cutoff Current at V _{CB} = 10 V	I _{CBO}	-	-	0.1	μA
Collector Cutoff Current at V _{CE} = 10 V	I _{CEO}	-	-	1	μA
Emitter Cutoff Current at V _{EB} = 7 V	I _{EBO}	-	-	0.1	μA
Collector Emitter Saturation Voltage at I _C = 3 A, I _B = 0.1 A	V _{CE(sat)}	-	-	1	V
Transition Frequency at V _{CB} = 6 V, -I _E = 50 mA, f = 200 MHz	f _T	-	150	-	MHz
Collector Output Capacitance at V _{CB} = 20 V, f = 1 MHz	C _{ob}	-	-	50	pF





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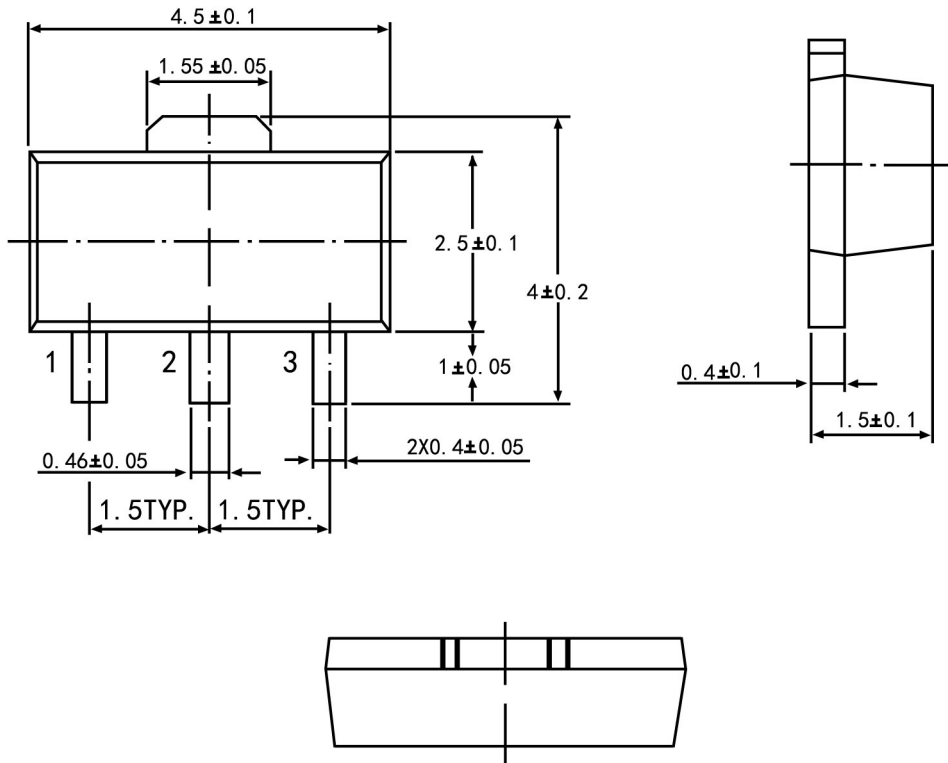
SOT-89

2SD965U



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SOT-89 PACKAGE OUTLINE



Symbol	Dimension in Millimeters	
	Min	Max
A	1.40	1.60
B	0.44	0.62
B1	0.35	0.54
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
e	1.50 Typ	
H	3.94	4.25
H1	2.63	2.93
L	0.89	1.20
All Dimensions In mm		