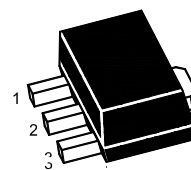




2SA1664U Epitaxial Planar Transistor

High Current Application

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



1.Base 2.Collector 3.Emitter

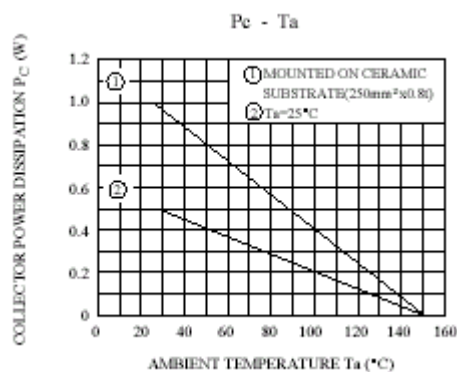
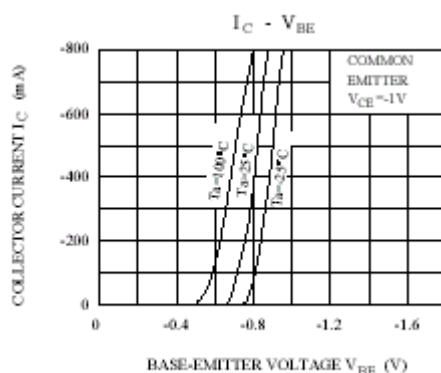
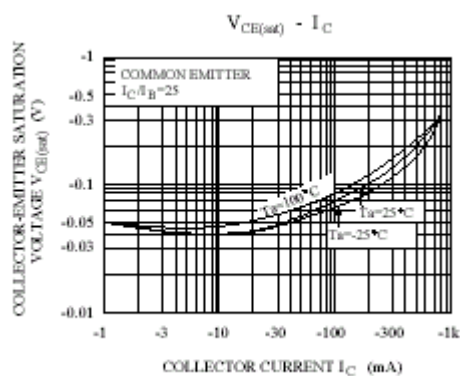
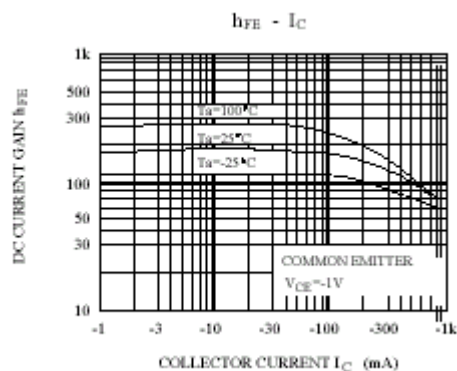
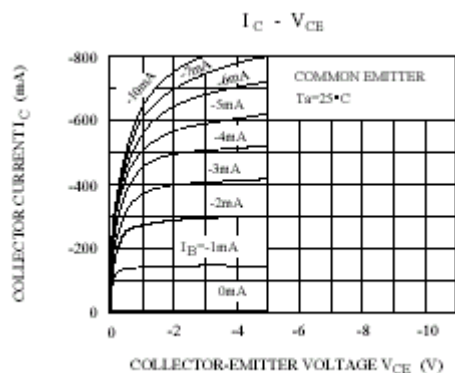
SOT-89-3L

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	35	V
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	800	mA
Base Current	$-I_B$	160	mA
Collector Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	-55 to +150	$^\circ\text{C}$

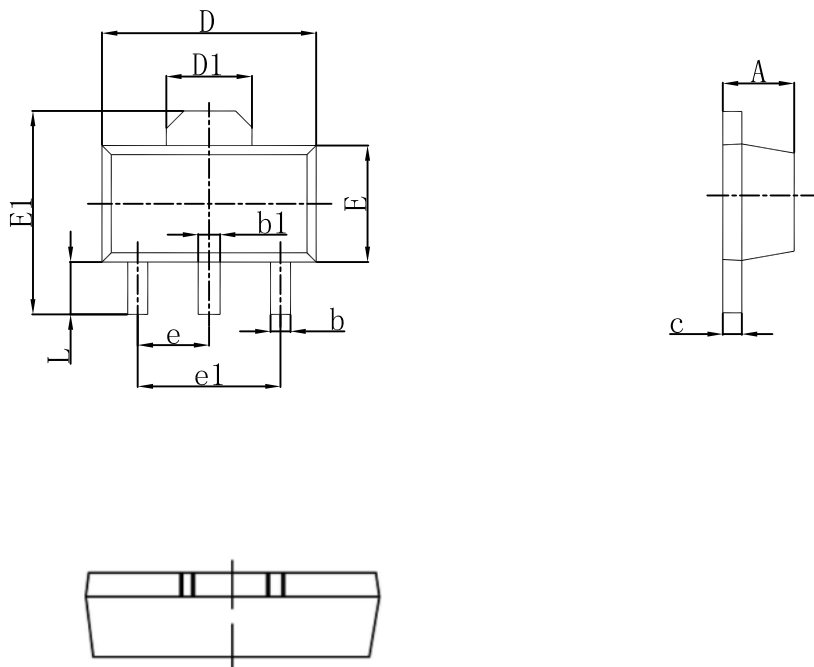
Characteristics at $T_{amb} = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 1\text{ V}$, $-I_C = 100\text{ mA}$ at $-V_{CE} = 1\text{ V}$, $-I_C = 700\text{ mA}$	O Y h_{FE}	100	-	200	-
		160	-	320	-
		35	-	-	-
Collector Cutoff Current at $-V_{CB} = 35\text{ V}$	$-I_{CBO}$	-	-	100	nA
Emitter Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	100	nA
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	$-V_{(BR)CEO}$	30	-	-	V
Base Emitter Voltage at $-V_{CE} = 1\text{ V}$, $-I_C = 10\text{ mA}$	$-V_{BE}$	0.5	-	0.8	V
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	19	-	pF
Collector Emitter Saturation Voltage at $-I_C = 500\text{ mA}$, $-I_B = 20\text{ mA}$	$-V_{CE(sat)}$	-	-	0.7	V
Transition Frequency at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	f_T	-	120	-	MHz





SOT-89-3L Outlines Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047