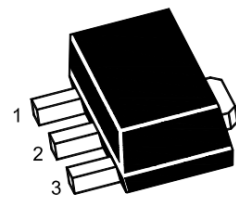




2SD882U Silicon Power Transistor

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

MARKING: D882



1.Base 2.Collector 3.Emitter

SOT-89-3L

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

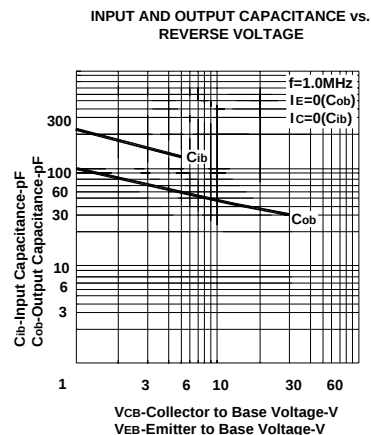
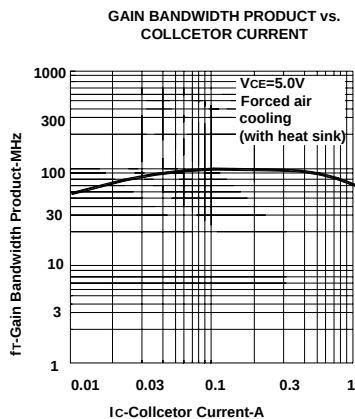
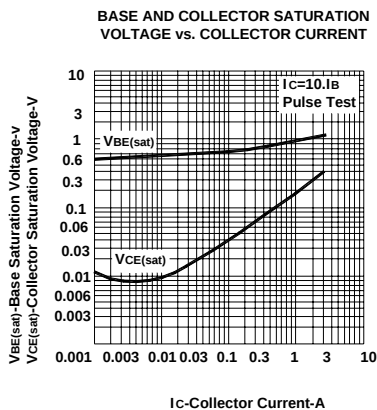
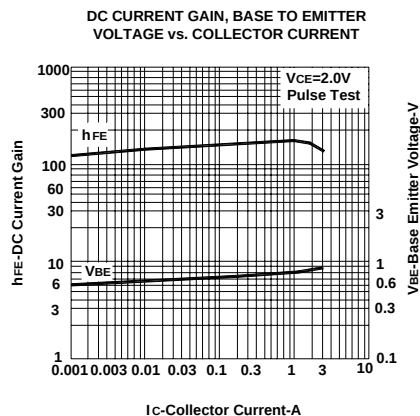
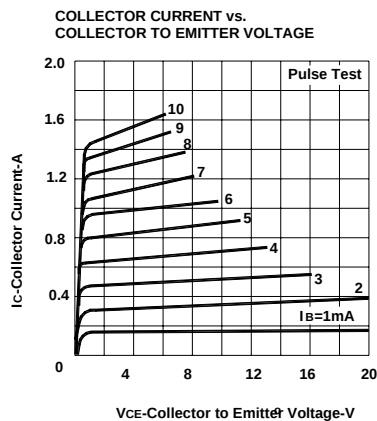
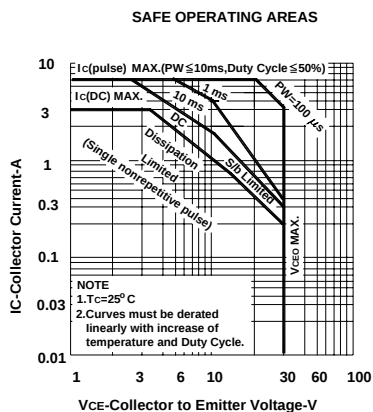
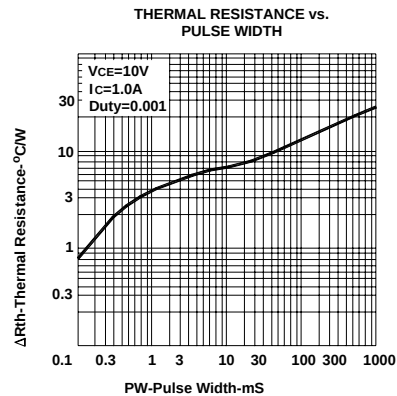
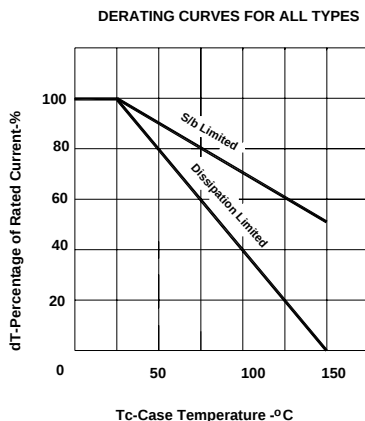
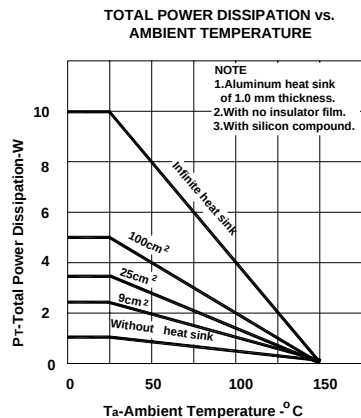
Parameter	Symbol	Value	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	3	A
Peak Collector Current ($t = 10\text{ ms}$)	I_{CP}	7	A
Total power dissipation ($T_a = 25^\circ\text{C}$)	P_{tot}	1	W
Total power dissipation ($T_c = 25^\circ\text{C}$)	P_{tot}	10	W
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.	Typ.	Max.	Unit
DC Current Gain					
at $V_{CE} = 2\text{ V}$, $I_C = 20\text{ mA}$	h_{FE}	30	-	-	-
at $V_{CE} = 2\text{ V}$, $I_C = 1\text{ A}$	h_{FE}	60	-	120	-
Current Gain Group R	h_{FE}	100	-	200	-
Q	h_{FE}	160	-	320	-
P	h_{FE}	200	-	400	-
E	h_{FE}				
Collector Base Cutoff Current	I_{CBO}	-	-	1	μA
at $V_{CB} = 30\text{ V}$					
Emitter Base Cutoff Current	I_{EBO}	-	-	1	μA
at $V_{EB} = 3\text{ V}$					
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.5	V
at $I_C = 2\text{ A}$, $I_B = 0.2\text{ A}$					
Base Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	2	V
at $I_C = 2\text{ A}$, $I_B = 0.2\text{ A}$					
Gain Bandwidth Product	f_T	-	90	-	MHz
at $V_{CE} = 5\text{ V}$, $I_C = 0.1\text{ A}$					
Output Capacitance	C_{ob}	-	45	-	pF
at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$					

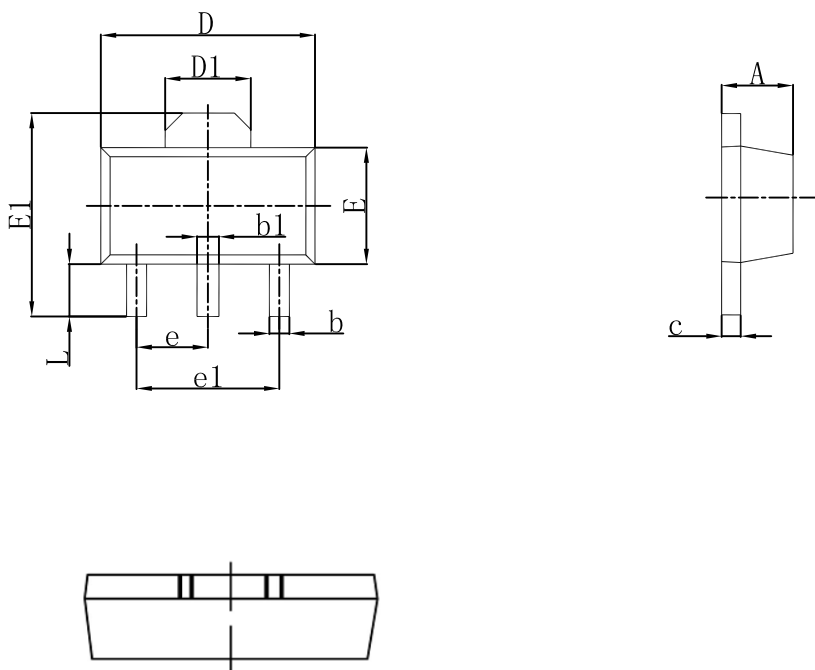


TYPICAL CHARACTERISTICS (Ta=25°C)





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