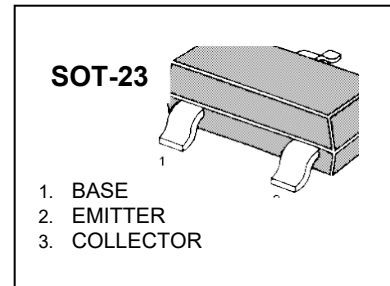


2SD882 NPN Silicon Power Transistor

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



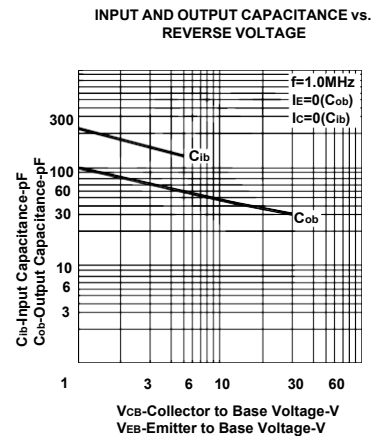
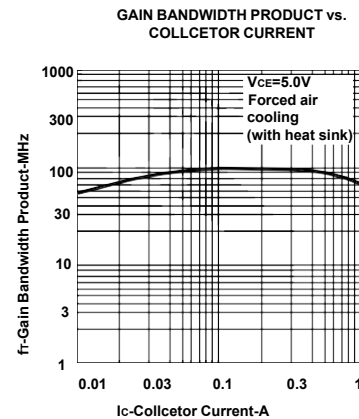
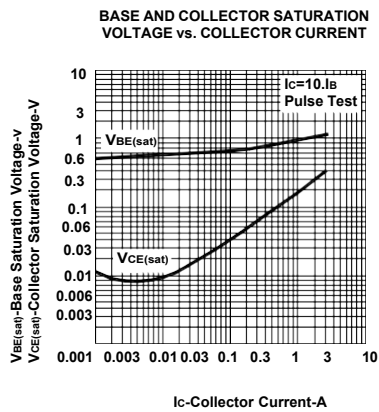
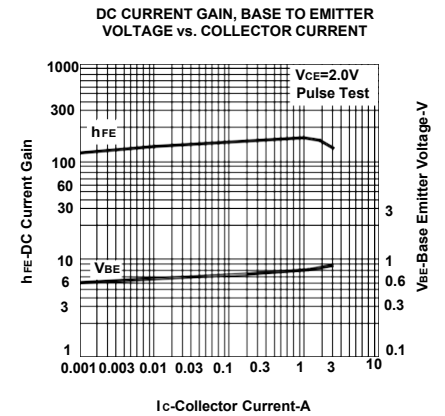
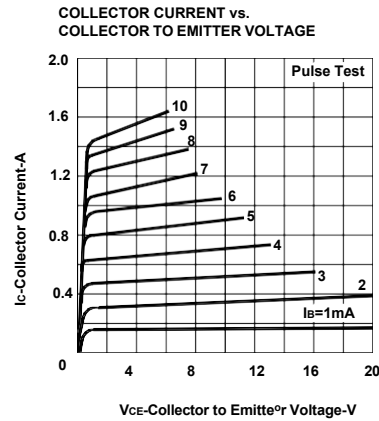
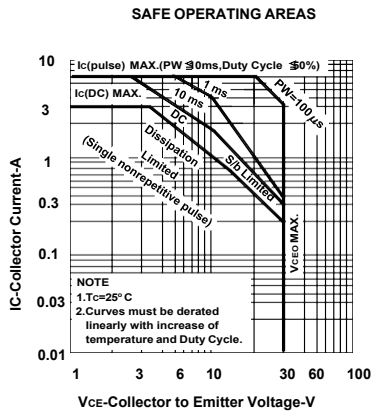
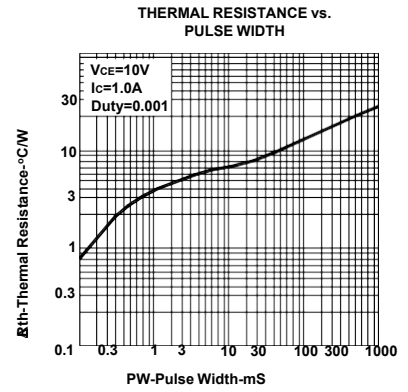
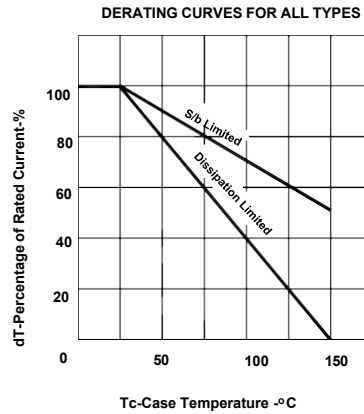
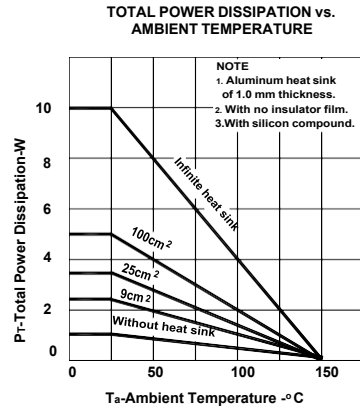
Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	3	A
Peak Collector Current (t = 10 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 $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at $V_{CE} = 2\text{ V}$, $I_C = 20\text{ mA}$	h_{FE}	30	-	-	-
at $V_{CE} = 2\text{ V}$, $I_C = 1\text{ A}$ Current Gain Group	h_{FE}	60	-	120	-
	h_{FE}	100	-	200	-
	h_{FE}	160	-	320	-
	h_{FE}	200	-	400	-
Collector Base Cutoff Current					
at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	1	μA
Emitter Base Cutoff Current					
at $V_{EB} = 3\text{ V}$	I_{EBO}	-	-	1	μA
Collector Emitter Saturation Voltage					
at $I_C = 2\text{ A}$, $I_B = 0.2\text{ A}$	$V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage					
at $I_C = 2\text{ A}$, $I_B = 0.2\text{ A}$	$V_{BE(sat)}$	-	-	2	V
Gain Bandwidth Product					
at $V_{CE} = 5\text{ V}$, $I_C = 0.1\text{ A}$	f_T	-	90	-	MHz
Output Capacitance					
at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	45	-	pF

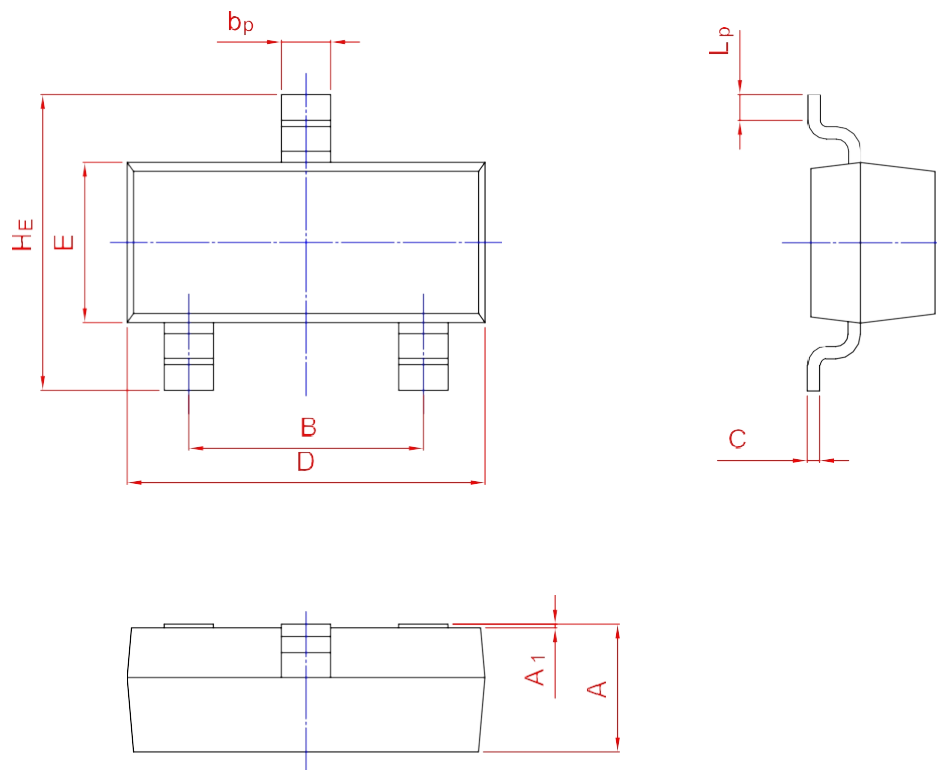
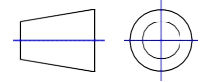
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b _p	C	D	E	H _E	A ₁	L _p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20