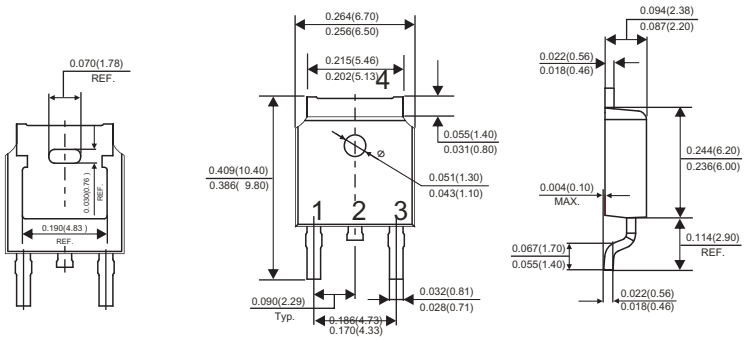
2SD882

NPN Silicon Power Transistor

TO-252

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



1. Base 2. Collector 3. Emitter 4. Collector

Dimensions in millimeters

Absolute Maximum Ratings (T_a = 25℃)

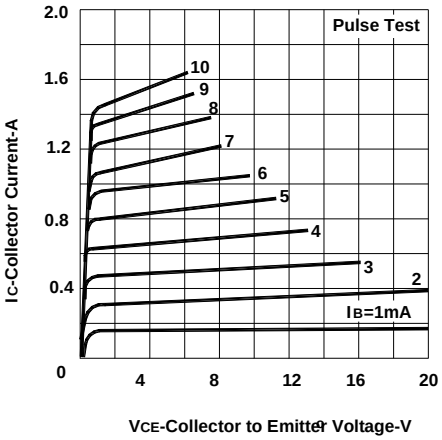
Parameter	Symbol	Value	Unit
Collector to Base Voltage	V_{CBO}	40	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current	I_C	3	A
Peak Collector Current (t = 350 μs)	I_{CP}	7	A
Total power dissipation (Ta = 25℃)	P_{tot}	1	W
Total power dissipation (Tc = 25℃)	P_{tot}	10	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	- 55 to + 150	℃

Characteristics at T_a = 25℃

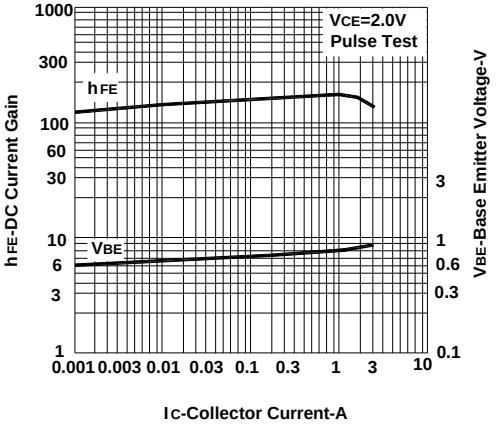
Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at V_{CE} = 2 V, I_C = 20 mA		h_{FE}	30	-	-	-
at V_{CE} = 2 V, I_C = 1 A	Current Gain Group R	h_{FE}	60	-	120	-
	Q	h_{FE}	100	-	200	-
	P	h_{FE}	160	-	320	-
	E	h_{FE}	200	-	400	-
Collector Base Cutoff Current at V_{CB} = 30 V		I_{CBO}	-	-	1	μA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

RATINGS AND CHARACTERISTIC CURVES

COLLECTOR CURRENT vs.
COLLECTOR TO EMITTER VOLTAGE



DC CURRENT GAIN, BASE TO EMITTER
VOLTAGE vs. COLLECTOR CURRENT



BASE AND COLLECTOR SATURATION
VOLTAGE vs. COLLECTOR CURRENT