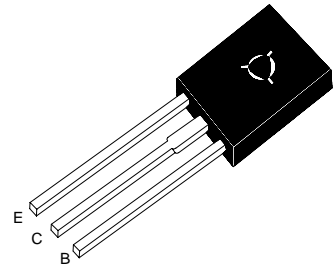


ST 2SD882U-P

NPN SILICON EPITAXIAL POWER TRANSISTOR

These devices are intended for use in Medium Power Linear and Switching Applications

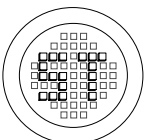


TO-18 Plastic Package

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

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	120	V
Collector Emitter Voltage	V_{CES}	100	V
Collector Emitter Voltage	V_{CEO}	100	V
Emitter Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	4000	mA
Collector Current – Peak ($t_p \leq 10\text{ms}$)	I_{CM}	7000	mA
Base Current - Continuous	I_B	1000	mA
Total Power Dissipation @ $T_A=25^{\circ}\text{C}$	P_D	1.25	W
Derate above 25°C		10	mW/ $^{\circ}\text{C}$
Total Power Dissipation @ $T_C=25^{\circ}\text{C}$	P_D	36	W
Operating and Storage Junction Temperature Range	T_J, T_S	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance ,Junction to Ambient	$R_{\theta JA}$	100	$^{\circ}\text{C/W}$
Thermal Resistance ,Junction to Case	$R_{\theta JC}$	3.5	$^{\circ}\text{C/W}$

G S P FORM A IS AVAILABLE



®

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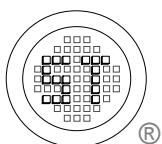
ST 2SD882U-P

Characteristics at Ta=25 °C

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at V _{CE} =5V, I _C =10mA	*h _{FE}	15	-	-	-
at V _{CE} =1V, I _C =500mA	*h _{FE}	100	-	260	-
at V _{CE} =1V, I _C =2A	*h _{FE}	15	-	-	-
Collector Emitter Voltage					
at I _C =1mA	V _{CEO}	100	-	-	V
Collector Cutoff Current					
at V _{CB} =Rated V _{CBO}	I _{CBO}	-	-	100	μA
Collector Cutoff Current					
at V _{CE} =Rated V _{CES}	I _{CES}	-	-	100	μA
Emitter Cutoff Current					
at V _{EB} =5V	I _{EBO}	-	-	1	mA
Collector Emitter Saturation Voltage					
at I _C =2A, I _B =200mA	*V _{CE(sat)}	-	-	0.8	V
Base Emitter On Voltage					
at I _C =10mA, V _{CE} =5V	*V _{BE(on)}	-	0.58	-	V
at I _C =2A, V _{CE} =1V	*V _{BE(on)}	-	-	1.5	V
*h _{FE1} /h _{FE2}	Matched Pairs	-	-	1.4	-
at I _C =500mA, V _{CE} =1V					
Current Gain Bandwidth Product					
at I _C =250mA, V _{CE} =1V	f _T	3	-	-	MHz

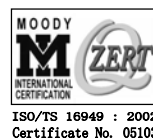
*Pulse Test: Pulse Width=300μs, Duty Cycle≤1.5%.

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SEMTECH ELECTRONICS LTD.

(Subsidiary of Semtech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001
Certificate No. 7116



ISO 9001 : 2000
Certificate No. 000-1999-00-002-001

Dated : 18/10/2003