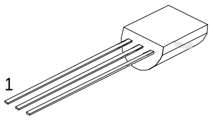
UTC 2SD882S NPN EPITAXIAL SILICON TRANSISTOR

MEDIUM POWER LOW VOLTAGE TRANSISTOR



TO-92

1:EMITTER 2:COLLECTOR 3:BASE

FEATURES

*High current output up to 3A

*Low saturation voltage

*Complement to 2SB772S

APPLICATIONS

- Audio power amplifier
- DC-DC convertor
- Voltage regulator

ABSOLUTE MAXIMUM RATINGS (Ta=25°C ,unless otherwise specified)

PARAMETERS	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	5	V
Collector dissipation(Tc=25°C)	Pc	10	W
Collector dissipation(Ta=25°C)	Pc	1	W
Collector current(DC)	Ic	3	A
Collector current(PULSE)	Ic	7	A
Base current	I_B	0.6	A
Junction Temperature	T_j	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C,unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector cut-off current	I_{CBO}	V_{CB}=30V,I_E=0			1000	nA
Emitter cut-off current	I_{EBO}	V_{EB}=3V,Ic=0			1000	nA
DC current gain(note 1)	h_{FE1}	V_{CE}=2V,Ic=20mA	30	200		
	h_{FE2}	V_{CE}=2V,Ic=1A	100	150	400	
Collector-emitter saturation voltage	V_{CE}(sat)	Ic=2A,I_B=0.2A		0.3	0.5	V
Base-emitter saturation voltage	V_{BE}(sat)	Ic=2A,I_B=0.2A		1.0	2.0	V
Current gain bandwidth product	f_T	V_{CE}=5V,Ic=0.1A		80		MHz
Output capacitance	Cob	V_{CB}=10V,I_E=0,f=1MHz		45		pF

Note 1:Pulse test:PW<300µs,Duty Cycle<2%

CLASSIFICATION OF hFE2

RANK	Q	P	E
RANGE	100-200	160-320	200-400

TYPICAL PARAMETERS PERFORMANCE

Fig.1 Static characteristics

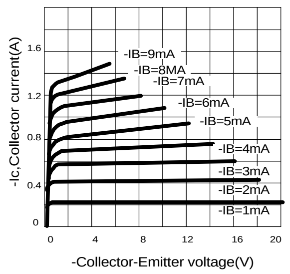


Fig.2 Derating curve of safe operating areas

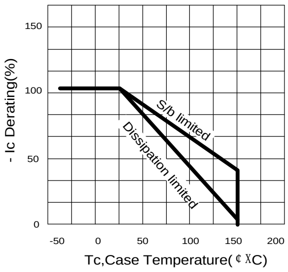


Fig.3 Power Derating

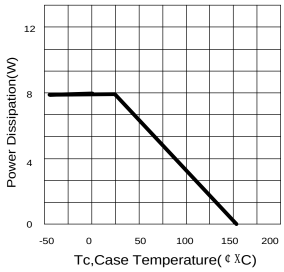


Fig.4 Collector Output capacitance

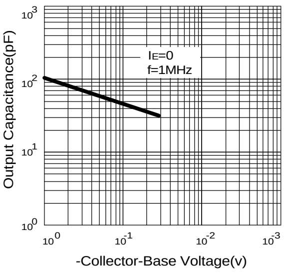


Fig.5 Current gain-bandwidth product

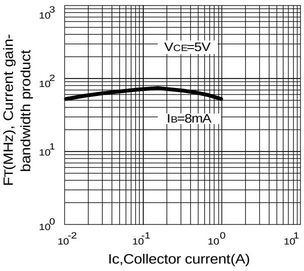


Fig.6 Safe operating area

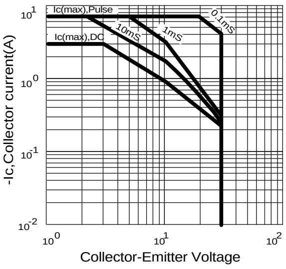


Fig.7 DC current gain

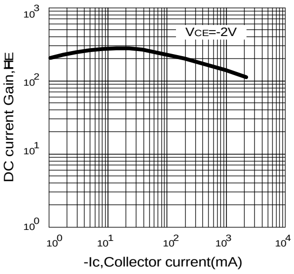


Fig.8 Saturation Voltage