

UTC2SD882S NPN EPITAXIAL SILICON TRANSISTOR

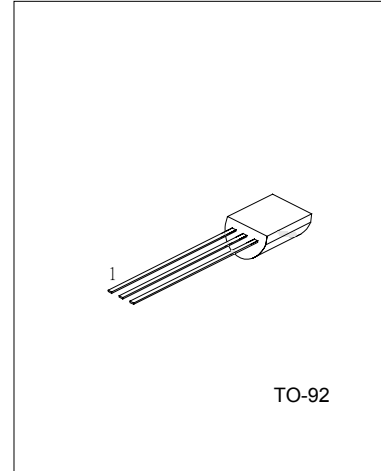
MEDIUM POWER LOW VOLTAGE TRANSISTOR

FEATURES

- *High current output up to 3A
- *Low saturation voltage
- *Complement to 2SB772S

APPLICATIONS

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



1:EMITTER 2:COLLECTOR 3:BASE

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

PARAMETERS	SYMBOL	RATING	UNIT
Collector-base voltage	V _{CB0}	40	V
Collector-emitter voltage	V _{CEO}	30	V
Emitter-base voltage	V _{EB0}	5	V
Collector dissipation(Ta=25°C)	P _c	0.5	W
Collector current(DC)	I _c	3	A
Collector current(PULSE)	I _c	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, I _C =0			1000	nA
DC current gain(note 1)	h _{FE1}	V _{CE} =2V, I _C =20mA	30	200		
	h _{FE2}	V _{CE} =2V, I _C =1A	100	150	400	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =2A, I _B =0.2A		0.3	0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =2A, I _B =0.2A		1.0	2.0	V
Current gain bandwidth product	f _T	V _{CE} =5V, I _C =0.1A		80		MHz
Output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		45		pF

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

CLASSIFICATION OF h_{FE2}

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

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TYPICAL PARAMETERS PERFORMANCE

Fig.1 Static characteristics

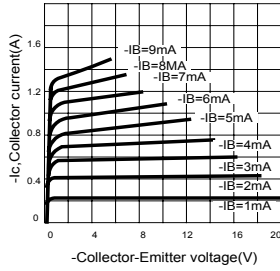


Fig.2 Derating curve of safe operating areas

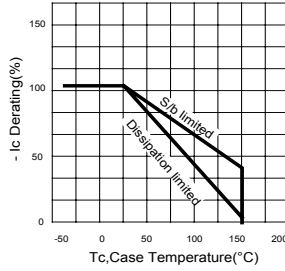


Fig.3 Power Derating

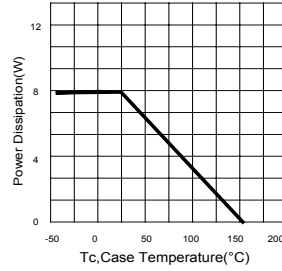


Fig.4 Collector Output capacitance

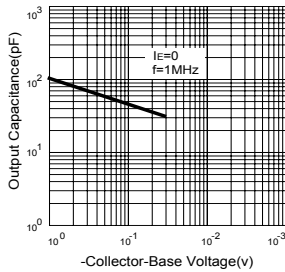


Fig.5 Current gain-bandwidth product

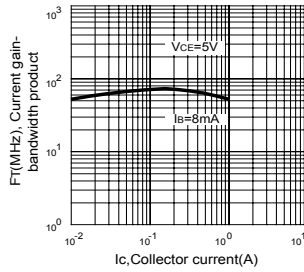


Fig.6 Safe operating area

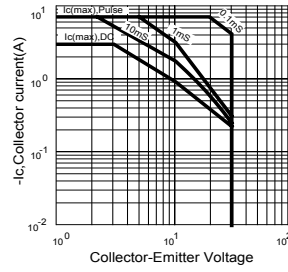


Fig.7 DC current gain

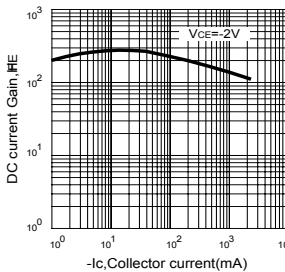
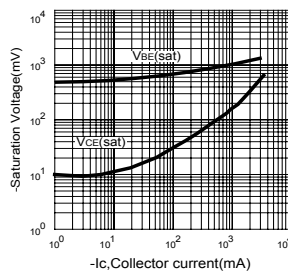


Fig.8 Saturation Voltage



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