

Silicon PNP Power Transistors

2SB827

DESCRIPTION

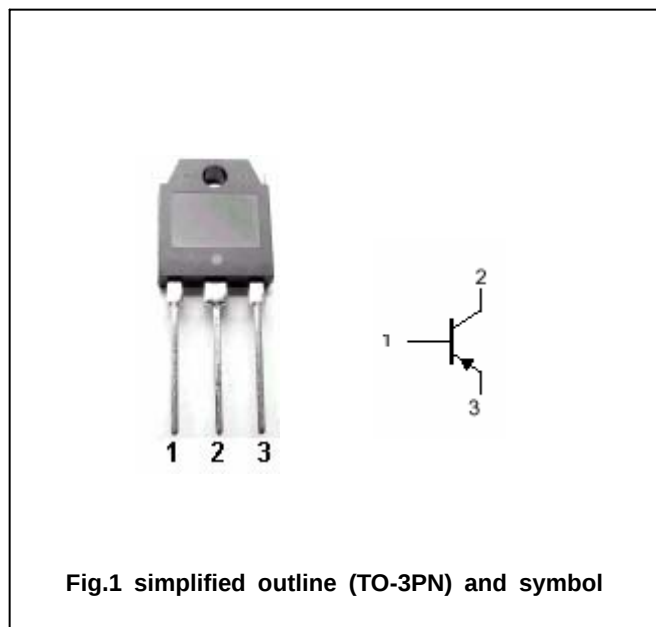
- With TO-3PN package
- Complement to type 2SD1063
- Wide area of safe operation
- Low collector-emitter saturation voltage :
 $V_{CE(sat)} = (-)0.4V$ max.

APPLICATIONS

- Universal high current switching as solenoid driving, high speed inverter and converter.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector; connected to mounting base
3	Emitter

Absolute maximum ratings($T_c=25^\circ C$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-60	V
V_{CEO}	Collector-emitter voltage	Open base	-50	V
V_{EBO}	Emitter-base voltage	Open collector	-6	V
I_C	Collector current (DC)		-7	A
I_{CP}	Collector current (Pulse)		-14	A
P_C	Collector power dissipation	$T_c=25$	60	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-1mA ; R _{BE} =∞	-50			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =-1mA ; I _E =0	-60			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-1mA ; I _C =0	-6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-4A ; I _B =-0.4A			-0.4	V
I _{CBO}	Collector cut-off current	V _{CB} =-40V ; I _E =0			-0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =-4V ; I _C =0			-0.1	mA
h _{FE-1}	DC current gain	I _C =-1A ; V _{CE} =-2V	70		280	
h _{FE-2}	DC current gain	I _C =-5A ; V _{CE} =-2V	30			
f _T	Transition frequency	I _C =-1A ; V _{CE} =-5V		10		MHz

Switching times

t _{on}	Turn-on time	I _C =-2.0A ; I _{B1} =-I _{B2} =-0.2A V _{CC} =-20V ; R _L =10Ω		0.20		μs
t _{stg}	Storage time			0.70		μs
t _f	Fall time			0.10		μs

◆ h_{FE-1} Classifications

Q	R	S
70-140	100-200	140-280

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PACKAGE OUTLINE

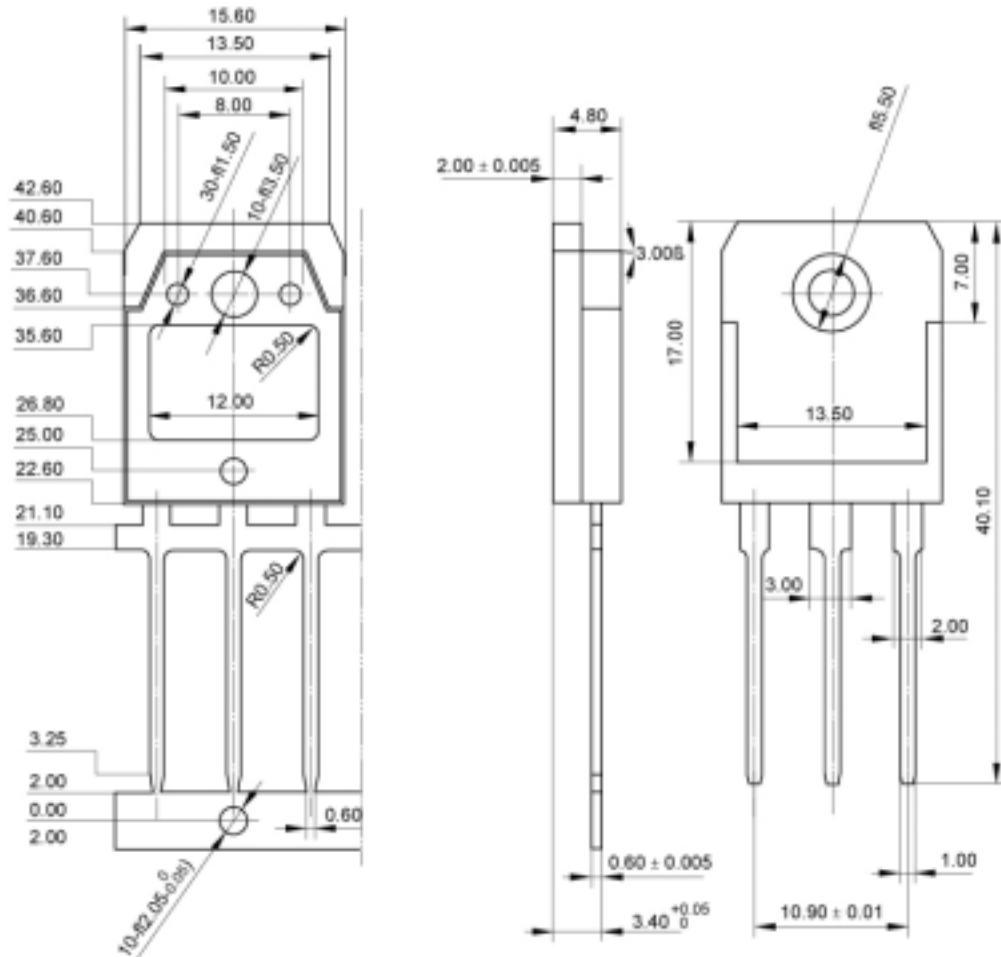


Fig.2 outline dimensions

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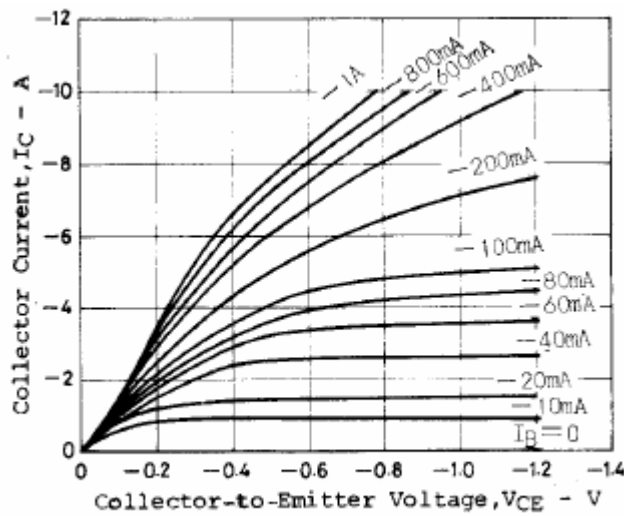


Fig.3 Static Characteristic

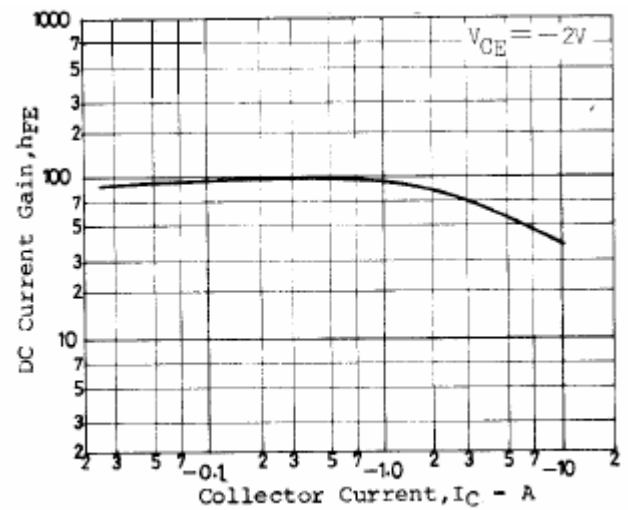


Fig.4 DC current Gain

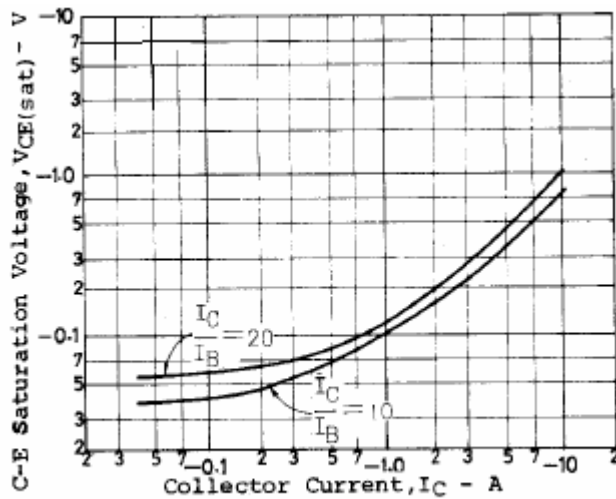


Fig.5 Collector-Emitter Saturation Voltage

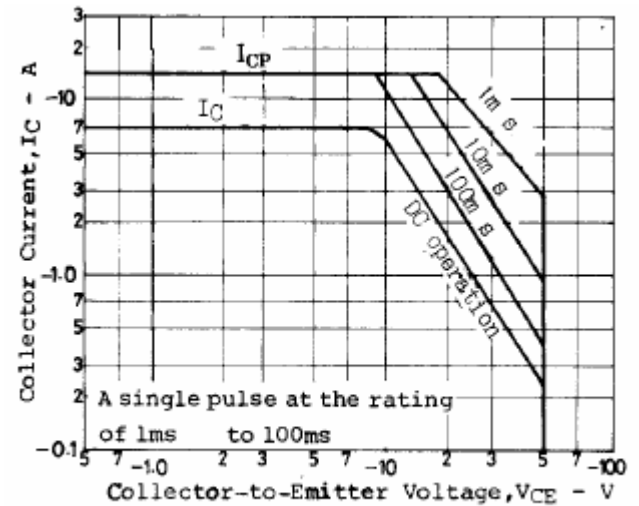


Fig.6 Safe Operating Area