

Silicon NPN Power Transistors

2SC3061

DESCRIPTION

- With TO-3 package
- Ultra-fast switching
- Wide area of safe operation
- High breakdown voltage

APPLICATIONS

- Switching regulators
- Motor controls
- Ultrasonic oscillators
- Class C and D amplifiers
- Deflection circuits

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

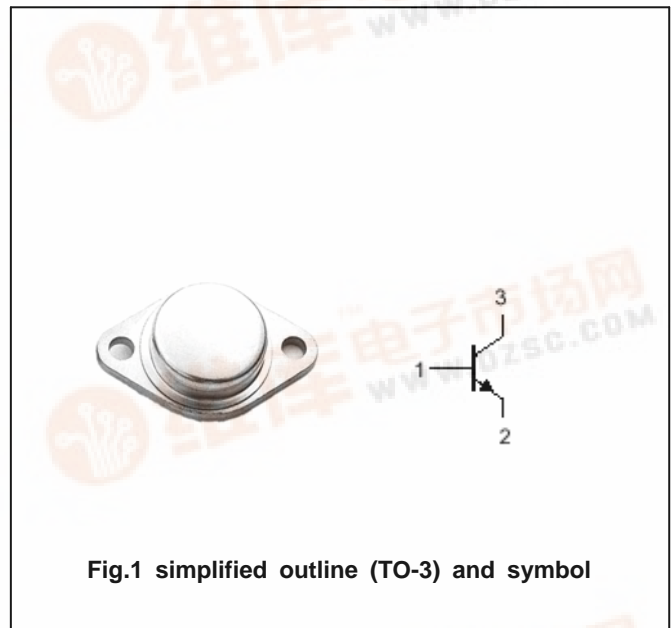


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(T_C=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1200	V
V _{CEO}	Collector-emitter voltage	Open base	850	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		10	A
I _{CP}	Collector current-pulse	PW ≤ 25 μ s, Duty cycle ≤ 50%	20	A
I _B	Base current		5	A
P _C	Collector power dissipation	T _C =25°C	200	W
T _j	Junction temperature		175	°C
T _{stg}	Storage temperature		-65~175	°C

Silicon NPN Power Transistors

2SC3061

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =10mA ; R _{BE} =∞	850			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA; I _E =0	1200			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA; I _C =0	7			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =4A; I _B =0.8A			1.5	V
V _{BE(sat)}	Base-emitter saturation voltage	I _C =4A; I _B =0.8A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =1000V; I _E =0			100	μ A
		V _{CB} =1000V; I _E =0, T _C =100°C			1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			100	μ A
h _{FE}	DC current gain	I _C =4A ; V _{CE} =5V	10		30	
f _T	Transition frequency	I _C =1A ; V _{CE} =10V		15		MHz
C _{ob}	Output capacitance	I _E =0; V _{CB} =10V, f=1MHz		220		pF

Switching times

t _r	Rise time	V _{CC} =400V; I _C =4A I _{B1} =0.4A; I _{B2} =-1.2A;			0.5	μ s
t _{stg}	Storage time				3.5	μ s
t _f	Fall time				0.3	μ s

PACKAGE OUTLINE

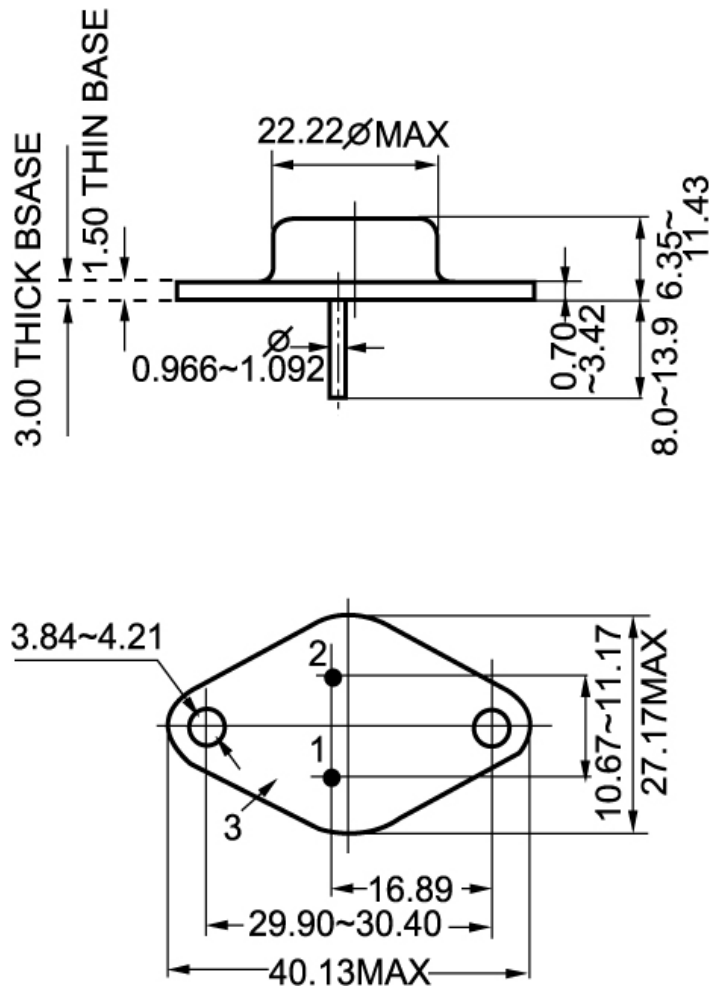


Fig.2 outline dimensions (unindicated tolerance: ± 0.1 mm)