Silicon NPN Power Transistors 2SC3043

DESCRIPTION

·With TO-3 package
·Fast switching speed
·Wide area of safe operation
·High breakdown voltage

APPLICATIONS

·For switching regulator applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

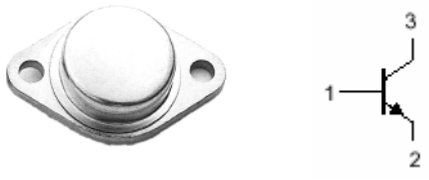

Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(T_C=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		12	A
I_{CP}	Collector current-pulse	PW≤300μs,Duty cycle≤10%	25	A
I_B	Base current		4	A
P_C	Collector power dissipation	T_C=25□	120	W
T_j	Junction temperature		150	□
T_{stg}	Storage temperature		-55~150	□

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CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=10mA ;R_{BE}=∞	400			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA; I_E=0	500			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=8A; I_B=1.6A			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=8A; I_B=1.6A			1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=400V; I_E=0			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			10	μA
h_{FE-1}	DC current gain	I_C=1.6A ; V_{CE}=5V	15			
h_{FE-2}	DC current gain	I_C=8A ; V_{CE}=5V	8			
f_T	Transition frequency	I_C=1.6A ; V_{CE}=10V		20		MHz
C_{ob}	Output capacitance	I_E=0; V_{CB}=10V,f=1MHz		160		pF

PACKAGE OUTLINE

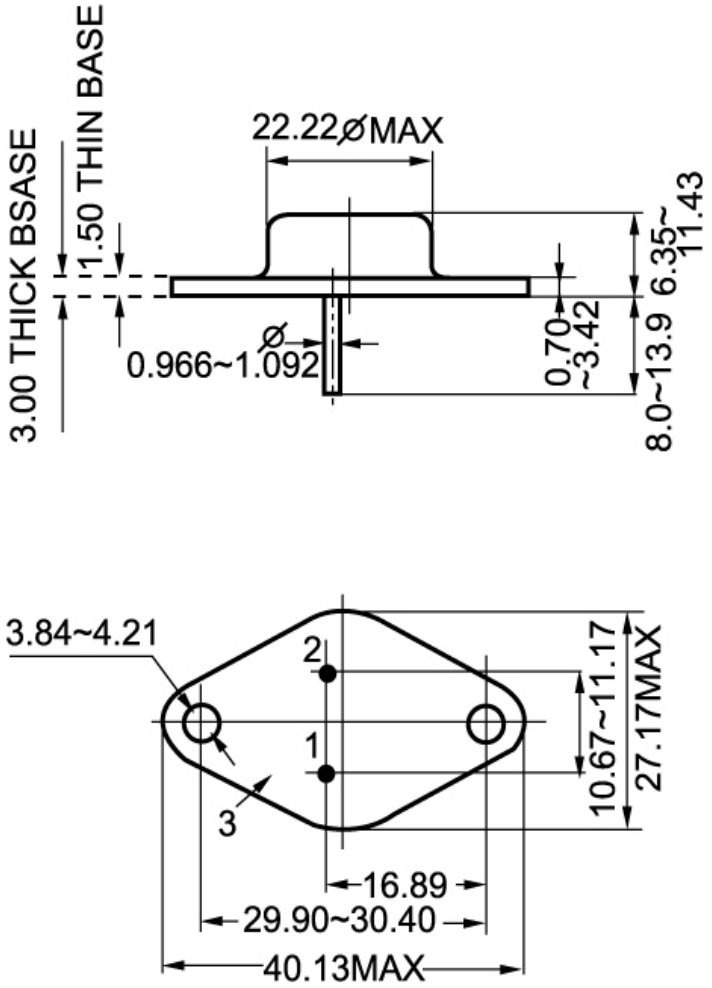

Fig.2 outline dimensions (unindicated tolerance:±0.1mm)