

Silicon NPN Power Transistors

2SC3058A

DESCRIPTION

- With TO-3 package
- High voltage ,high speed

APPLICATIONS

- For switching regulator and DC/DC converter applications

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	600	V
V_{CEO}	Collector-emitter voltage	Open base	450	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		30	A
P_T	Total power dissipation	$T_C=25^\circ\text{C}$	200	W
T_j	Junction temperature		200	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-mb}$	Thermal resistance from junction to mounting base	1.0	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA$; $I_B=0$	450			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA$; $I_E=0$	600			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1mA$; $I_C=0$	7			V
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=20A$; $I_B=4A$			1.0	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=20A$; $I_B=4A$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=500V$; $I_E=0$			100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V$; $I_C=0$			100	μA
h_{FE-1}	DC current gain	$I_C=1A$; $V_{CE}=5V$	15		50	
h_{FE-2}	DC current gain	$I_C=20A$; $V_{CE}=5V$	10		40	
f_T	Transition frequency	$I_C=4A$; $V_{CE}=10V$		30		MHz
C_{OB}	Collector output capacitance	$I_E=0$; $V_{CB}=10V$; $f=1MHz$		420		pF

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PACKAGE OUTLINE

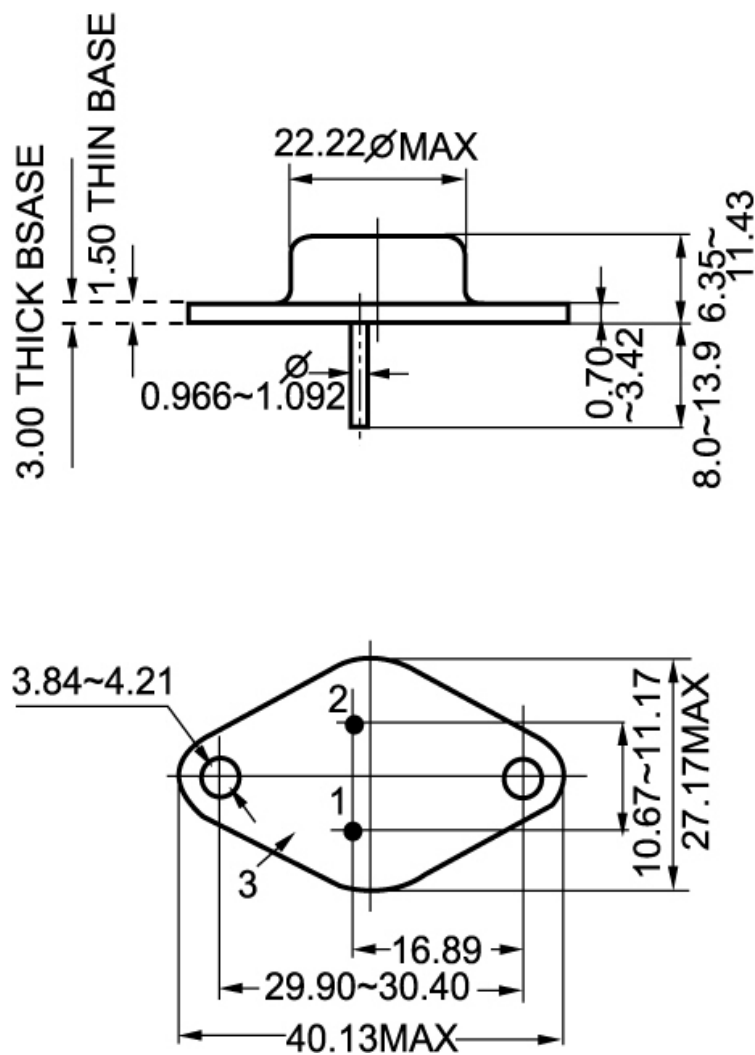


Fig.2 Outline dimensions