Silicon NPN Power Transistors 2SC3058

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(Ta=25□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	600	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		30	A
P_T	Total power dissipation	T_C=25□	200	W
T_j	Junction temperature		200	□
T_{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

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

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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 ; I_B=0	400			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_{CEsat}	Collector-emitter saturation voltage	I_C=20A; I_B=4A			1.0	V
V_{BEsat}	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			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			10	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

PACKAGE OUTLINE

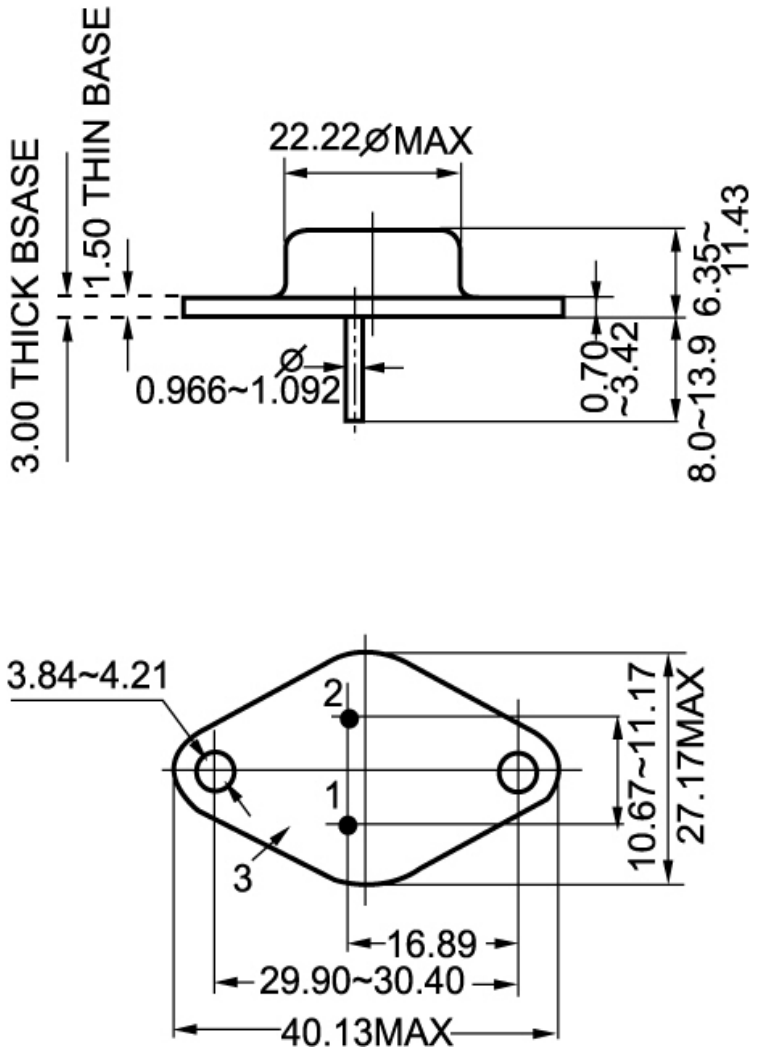

Fig.2 Outline dimensions