

Silicon NPN Power Transistors 2N6338 2N6339 2N6340 2N6341

DESCRIPTION

- With TO-3 package
- High DC current gain
- Fast switching times
- Low collector saturation voltage
- Complement to type 2N6436~38

APPLICATIONS

- For use in industrial-military power amplifier and switching circuit applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

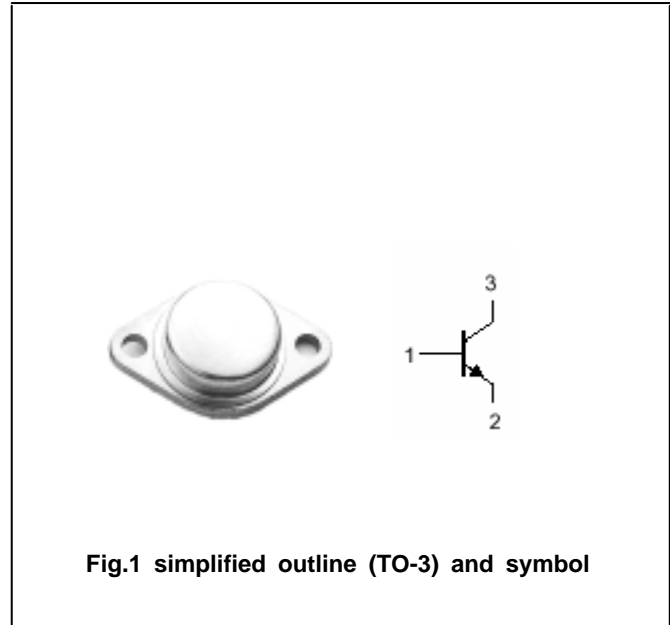


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a =$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT	
V_{CBO}	Collector-base voltage	Open emitter	2N6338	120	V
			2N6339	140	
			2N6340	160	
			2N6341	180	
V_{CEO}	Collector-emitter voltage	Open base	2N6338	100	V
			2N6339	120	
			2N6340	140	
			2N6341	150	
V_{EBO}	Emitter-base voltage	Open collector	6	V	
I_C	Collector current		25	A	
I_{CM}	Collector current-peak		50	A	
I_{BC}	Base current		10	A	
P_D	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
$R_{th\ j-c}$	Thermal resistance junction to case	0.875	/W

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CHARACTERISTICST_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(SUS)CEO}	Collector-emitter sustaining voltage	2N6338	I _C =50mA ; I _B =0			V
		2N6339				
		2N6340				
		2N6341				
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =10A; I _B =1.0A			1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =25A; I _B =2.5A			1.8	V
V _{BE sat-1}	Base-emitter saturation voltage	I _C =10A; I _B =1.0A			1.8	V
V _{BE sat-2}	Base-emitter saturation voltage	I _C =25A; I _B =2.5A			2.5	V
V _{BE}	Base-emitter on voltage	I _C =10A ; V _{CE} =2V			1.8	V
I _{CEX}	Collector cut-off current	V _{CE} =Rated V _{CEO} ; V _{EB} =-1.5V T _C =150			10 1.0	μ A mA
I _{CBO}	Collector cut-off current	V _{CB} =Rated V _{CB} ; I _E =0			10	μ A
I _{CEO}	Collector cut-off current	2N6338			50	μ A
		2N6339				
		2N6340				
		2N6341				
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			100	μ A
h _{FE-1}	DC current gain	I _C =0.5A ; V _{CE} =2V	50			
h _{FE-2}	DC current gain	I _C =10A ; V _{CE} =2V	30		120	
h _{FE-3}	DC current gain	I _C =25A ; V _{CE} =2V	12			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V;f=1MHz			300	pF
f _T	Transition frequency	I _C =1A ; V _{CE} =10V;f=10MHz	40			MHz

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PACKAGE OUTLINE

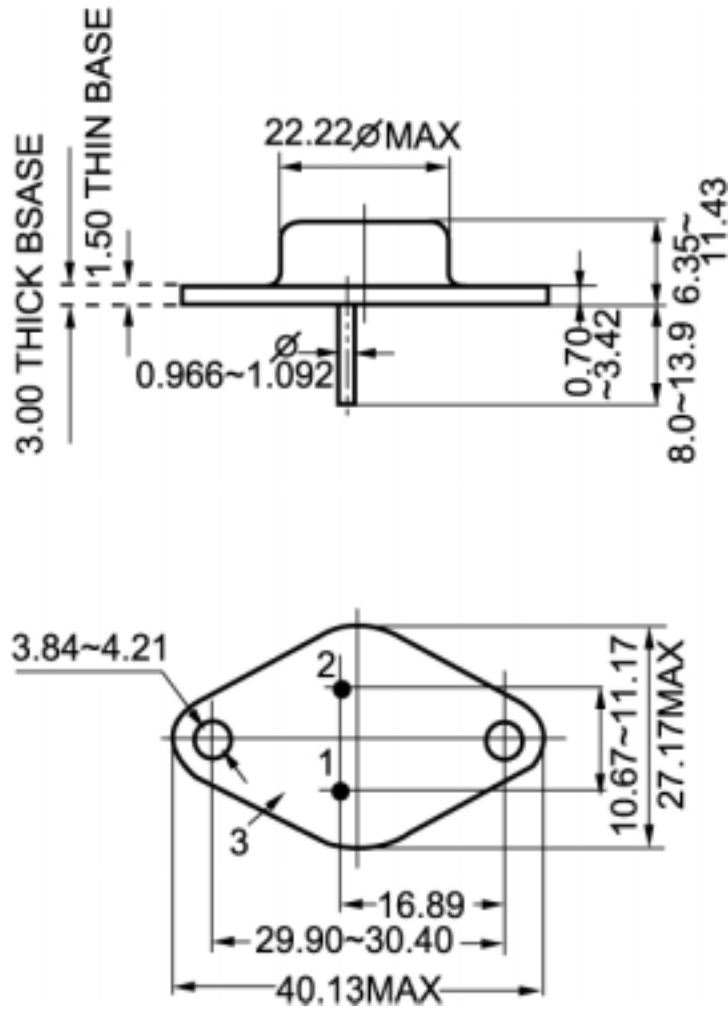


Fig.2 outline dimensions